Epson® PowerLite® 821p Multimedia Projector

User's Guide

Important Safety Information

WARNING: Never look into the projector lens when the lamp is turned on; the bright light can damage your eyes. Never let children look into the lens when it is on. Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages inside the projector can severely injure you. Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself. Refer all servicing to qualified service personnel.

WARNING: The projector and its accessories come packaged in plastic bags. Keep plastic bags away from small children to avoid any risk of suffocation.

Caution: When you replace the lamp, never touch the new lamp with your bare hands; the invisible residue left by the oil on your hands may shorten the lamp life. Use a cloth or glove to handle the new lamp.

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Welcome

The Epson® Lite® 821p is a portable projector that offers up to 2600 ANSI lumens of brightness. From classrooms to boardrooms, your full-color presentations and videos will be bright and visible even in ordinary indoor lighting. With its whisper-quiet operation, ease-of-use, and quick start up and shut down, the PowerLite 821p ensures that your presentations come off without a hitch. Additionally, its built-in speaker delivers powerful 5 watt audio, making it perfect for presentations in large rooms.

Images are displayed at a native resolution of 1024 × 768 pixels. The PowerLite 821p delivers accurate color, superior color saturation, and incredibly vivid images and clear text. Support for S-video contributes to theater-quality performance.

You can connect the projector to a wide range of computers, including IBM®-compatible PCs and notebooks, Apple® Macintosh,® Power Macintosh® series (including G3, G4, and G5 systems), PowerBook® computers, and many iMac® and iBook® series systems. With Epson's patented SizeWise™ technology, the projector supports computer displays ranging from VGA through UXGA.

You can connect any of the following video sources: HDTV, VCR, DVD player, gaming console (such as Microsoft® Xbox,™ Sony® PlayStation® 2, and Nintendo GameCube™), camcorder, digital camera, or laser disc player. The PowerLite 821p supports NTSC, PAL, and SECAM video formats.

You can connect up to four devices to the projector at the same time. The source buttons let you easily switch among them, and a dedicated audio port for each source lets you automatically switch sound when you switch video. With the projector's Source Search button, you don't even have to identify your input source. Just press the button repeatedly until you see the image you want on the screen.

To prevent unauthorized use of your PowerLite 821p, you can assign a password, create a user logo which is displayed at startup to identify the projector, and disable the projector's buttons through the Operation Lock feature. For more information about security features, see page 62.

Getting the Most from Your Projector

Depending on your presentation, you can take advantage of any or all of these options:

- Connecting to a notebook or other computer
  If you want to connect the projector to a notebook or desktop computer, see page 16. For additional presentation control, you can connect the USB cable to the projector for running slide shows, and connect an external monitor to view the presentation on your computer simultaneously.
- Connecting to video sources
  You can connect a DVD player, VCR, HDTV, camcorder, laser disc player, digital camera, and other video sources to your projector. See page 22 for instructions.
- Using the remote control
  The remote control lets you switch from computer to video sources, zoom in on part of your image, freeze or mute the presentation, and adjust many other projector features. For details, see Chapter 3.

  By connecting the USB mouse cable included with your projector, you can also use the remote control as a wireless mouse. This lets you click through computer-based presentations (such as PowerPoint®) from up to 20 feet away. For more information, see page 47.
- Including sound in your presentation
  If your presentation includes sound, you can connect the audio cable that came with your projector to use the projector's built-in speaker. See page 21.

Using Your Documentation

Your documentation includes a *Quick Setup* sheet, warranty brochures, and Epson PrivateLine® Support card.

The *Quick Setup* sheet gives instructions to quickly set up your projector and connect it to a notebook, iBook, or PowerBook computer.

This book contains all the information you need to set up and use your projector. Please follow these guidelines as you read through it:

- Warnings must be followed carefully to avoid bodily injury.
- Cautions must be observed to avoid damage to your equipment.
- Notes contain important information about your projector.

Getting More Information

Need tips on giving presentations? How about quick steps for setting up your projector? Here's where you can look for help:

- www.presentersonline.com
  Includes a library of articles covering presentation tips, tricks, and technology. The site provides templates, clip art and sound clips, as well as Presenters Services to use on the road. Even more resources and services are available if you register to join the Presenters Club®—and it's free.
- built-in help system
  Press the Help button on the remote control or projector to get quick solutions for common problems. See page 77 for details.
- support.epson.com
  Download FAQs (frequently-asked questions) and e-mail your questions to Epson support.

If you still need help after checking this *User's Guide* and the sources listed above, you can use the Epson PrivateLine Support service to get help fast. Call (800) 637-7661 and enter the PIN on your PrivateLine Support card. See page 91 for more information.

Registration and Warranty

Your projector comes with a basic carry-in warranty and an international warranty that let you project with confidence anywhere in the world. For details, see page 104 and the warranty brochure that came with your projector.

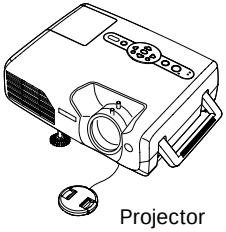
In addition, Epson offers free Extra Care℠ Road Service. In the unlikely event of an equipment failure, you won't have to wait for your unit to be repaired. Instead, Epson will ship you a replacement unit anywhere in the United States or Canada, usually via overnight delivery. See the Extra Care Road Service brochure for details.

To register, complete the registration form that came with your projector and mail it to Epson. Or register your product online at: http://www.epson.com/webreg

Registering also lets you receive special updates on new accessories, products, and services.

Unpacking the Projector

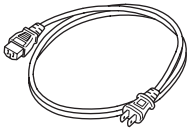
After unpacking the projector, make sure you have all these items:



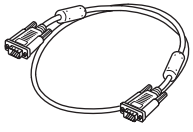
Projector

Remote control and batteries

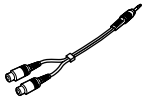
Documentation



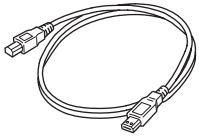
Power cord



VGA computer cable



Audio adapter



USB cable

Save all packaging in case you need to ship the projector. Always use the original packaging (or equivalent) when you need to send the projector to another location.

Additional Components

Depending on how you plan to use the projector, you may need additional components:

- To receive an S-video signal, you need an S-video cable. One is usually provided with your video device, or you can purchase it from Epson. See page 12.
- To receive a component video signal from a VCR or other video device, you need a D-sub, 15-pin, VGA-to-component video cable, which is available from Epson. See page 12.
- Some older PowerBooks and Macintosh desktop models may need the Macintosh adapter set shown on page 17 (available from Epson; see page 12). Older iMac systems may need a special adapter to provide a VGA output port; see your computer dealer.

Optional Accessories

To enhance your use of the projector, Epson provides the following optional accessories:

note

To purchase a replacement remote control, call (562) 276-4394 (U.S.) or (905) 709-3839 (for dealer referral in Canada).

Product	Product number
Replacement lamp	V13H010L30
Air filter replacement set	V13H134A06
Samsonite® wheeled soft case	ELPKS35
ATA molded hardshell case	ELPKS51
Component video cable S-video cable	ELPKC19 ELPSV01
Macintosh adapter set	ELPAP01
Distribution amplifier	ELPDA01
50-inch portable screen 60-inch portable pop-up screen 80-inch portable pop-up screen 83.6-inch hanging pull-down screen	ELPSC06 ELPSC07 ELPSC08 ELPSC09
Image presentation camera High resolution document camera	V12H162020 V12H064020
Kensington® security lock	ELPSL01
Ceiling mount False ceiling plate Suspension adapter Security bracket/cabling for gyro lock mounts Adjustable ceiling channel	ELPMB36 ELPMBFCP ELPMBAPL ELPMBSEC ELPMBACC

You can purchase these accessories from your dealer, by calling Epson at (800) 873-7766, or by visiting the Epson Store℠ at www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for dealer referral.

1 Setting Up the Projector

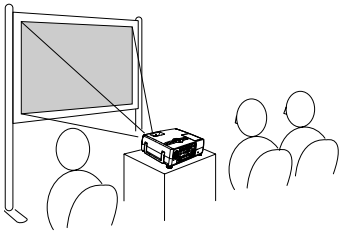
This chapter tells you how to set up the projector and connect it to a computer or video source. You can connect up to four devices simultaneously: four video sources, one computer and three video sources, or two computers and two video sources.

You'll find instructions for the following in this chapter:

- Positioning the projector
- Connecting to a computer
- Connecting to video sources

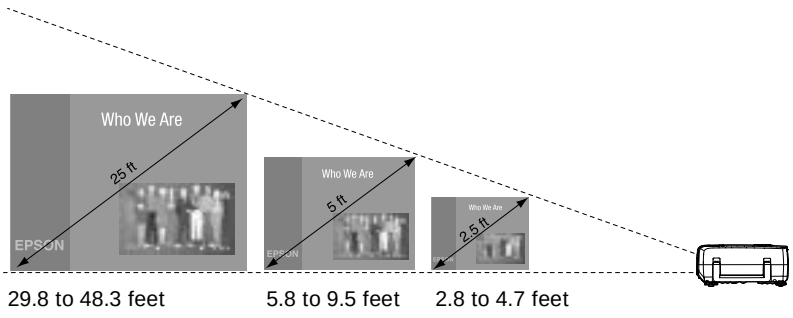
Positioning the Projector

Before connecting the projector, you need to decide where to place it. If you're setting up the projector yourself and it isn't already installed in the room you're using, you'll probably want to place it on a table in front of the screen, as shown.



This lets you stand in the front of the room, face the audience, and remain close enough to the equipment to be able to control it. Try to leave as much space as possible between the projector and the screen to get a good-size image.

Place the projector somewhere between 3 and 48 feet from the screen. Use the figure below to help you determine exactly how far. Image size increases with distance, but can vary depending on how you've adjusted the optical zoom and other settings.



note

You can download the Projection Distance Calculator program from the Drivers & Downloads link for your projector at http://support.epson.com.

Also keep these considerations in mind:

- Place the projector on a sturdy, level surface.
- Make sure there is plenty of space for ventilation around and under the projector. Do not set the projector on top of loose papers that could block the vents under the projector.
- Make sure the projector is within 6 feet of a grounded electrical outlet or extension cord.

Try to place the projector directly in front of the center of the screen, facing the screen squarely. If the projector isn't positioned this way, the image will be "keystone" shaped, instead of square or rectangular.

If you place the projector below the level of the screen, you'll have to tilt it up by extending the front adjustable foot, as described on page 37. This also causes the image to lose its rectangular shape, but the Auto Keystone feature corrects the distortion automatically. If the image does not regain its rectangular shape, the tilt angle is greater than 15° or the Auto Keystone feature may have been disabled. To turn it on, see page 58. To adjust it manually, see page 38.

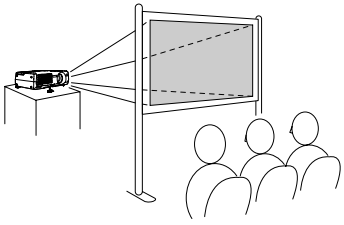
note

The Auto Keystone feature corrects vertical distortion automatically. For more information, see page 38.

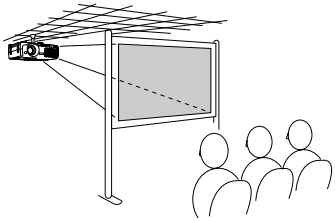
Other Installations

You can also project from behind the screen or from the ceiling, with the projector mounted upside-down:

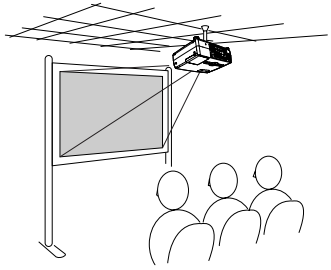
Rear projection (using a translucent screen)



Rear/ceiling projection (using a translucent screen)



Front/ceiling projection



To project from overhead, you'll need the optional ceiling mount hardware. (See page 12 for ordering information.) You'll also need to select Front/Ceiling or Rear/Ceiling for the Projection option in the Extended menu. To project from the rear, select Rear. See page 59 for more information.

Connecting to a Computer

note
If you have an iBook with an RCA video-out port, follow the instructions for connecting to a video device on page 23.

You can connect the PowerLite projector to any computer that has a standard VGA or BNC monitor port, including PC notebook computers, Macintosh PowerBooks and iBooks, and hand-held devices. You can connect two computers at the same time.

Follow the instructions in this section to:

- Connect the projector to your computer with the VGA cable included with the projector.
- Connect the projector to your computer with a commercially-available VGA–5BNC cable.

note
You cannot connect your computer to the projector using only a USB cable. To receive signals from the computer, you must connect it with the VGA cable that came with your projector or a VGA–5BNC cable. Connecting the USB cable lets you use the remote control as a wireless mouse.

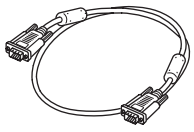
After connecting the projector to your computer, you may also want to:

- Connect the USB cable that came with your projector so that you can use the remote control as a wireless mouse; see page 19.
- Connect a monitor to the projector so you can view your presentation close-up as well as on-screen (not necessary if you're using a notebook); see page 20.
- Connect a commercially-available computer audio cable to play computer audio; see page 21.

Connecting with the VGA Cable

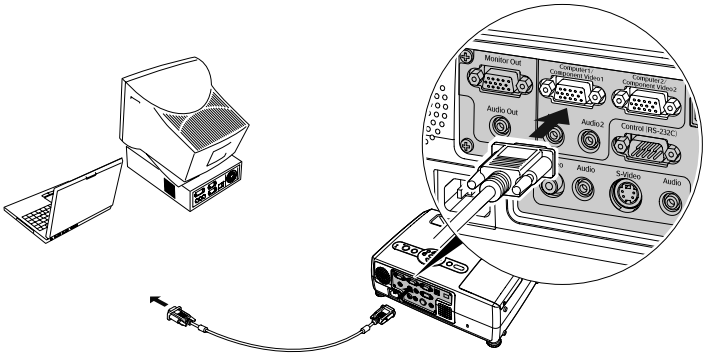
Follow these instructions to connect to your computer with the VGA cable that came with your projector. Before you start, make sure your computer and the projector are turned off.

1. If you are connecting the projector to a desktop computer, disconnect the monitor cable from your computer.
2. Locate the VGA computer cable that came with the projector.



VGA computer cable

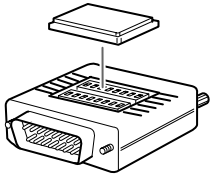
3. Connect one end of the cable to the projector's Computer1/Component Video1 or the Computer2/Component Video2 port. If you are going to connect your computer monitor to the projector for simultaneous display, use the Computer1/Component Video1 port.



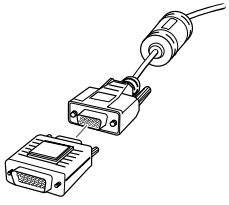
4. Connect the other end of the cable to your computer's video-out or monitor port.

   If you're using a PowerBook or iBook and you can't connect the cable, you may need to use the Macintosh desktop adapter as shown below (available from Epson; see page 12).

   To use the adapter, remove its cover as shown and set its DIP switches according to the resolution you want to use, such as 16-inch mode. See your Macintosh documentation for instructions.



   Replace the cover and connect the adapter to the free end of the computer video cable. Then plug the cable (with the adapter) into the video port on your Macintosh.



5. Tighten the screws on the connectors.

If you want to view the display simultaneously on your computer monitor and the projector screen, see "Connecting an External Monitor" on page 20.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

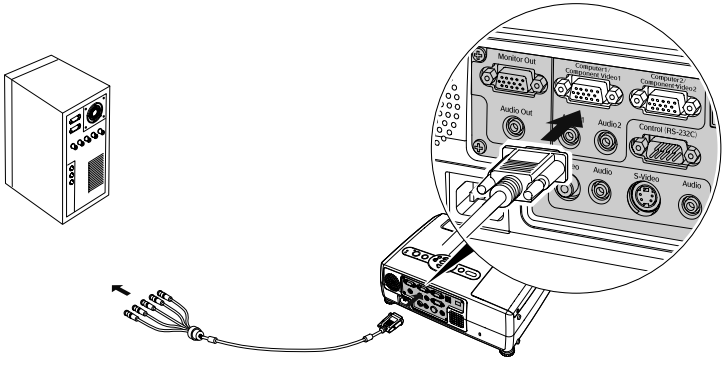
If more than one device is connected to the projector, select the correct source after projection starts by pressing the Source Search button on the projector or the Comp1 or Comp2 button on the remote control. See page 32.

Connecting with a VGA-5BNC Cable

VGA-5BNC cable

If your computer provides video output through BNC connectors, follow these instructions to connect the projector to your computer with an optional VGA-5BNC cable. Before you start, make sure your computer and the projector are turned off.

1. Disconnect the monitor cable from your computer.
2. Connect the cable's VGA connector to the projector's Computer1/Component Video1 or the Computer2/Component Video2 port. If you are going to connect your computer monitor to the projector for simultaneous display, use the Computer1/Component Video1 port.



3. Connect the BNC connectors to your computer's BNC ports.
4. Tighten the screws on the VGA connector.

If you want to view the display simultaneously on your computer monitor and the projector screen, see "Connecting an External Monitor" on page 20.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

If more than one device is connected to the projector, select the correct source after projection starts by pressing the Source Search button on the projector or the Comp1 or Comp2 button on the remote control. See page 32.

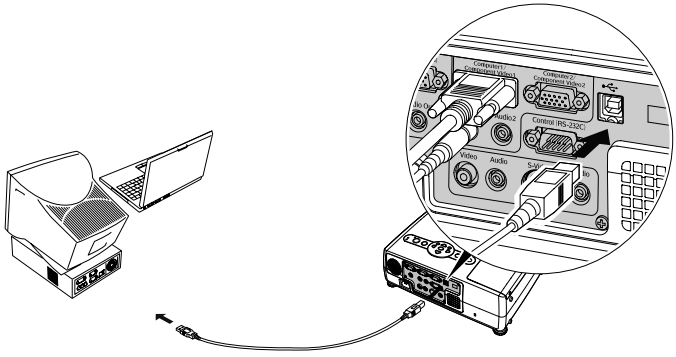
Connecting the USB Cable for Remote Mouse Control

Using the remote control as a wireless mouse lets you click through slideshow-style presentations, such as PowerPoint, from up to 20 feet away. This makes it easy to deliver your presentation, since you won't need to stand near your computer.

To use the wireless mouse function, your system must have a USB port and the full version of one of these operating systems:

Windows®	**Macintosh**
Windows 98SE, 2000, Me, or XP	Macintosh OS 8.6 to 9.2, OS X

1. If you are using a desktop computer, disconnect the mouse cable from your computer.
2. Locate the USB mouse cable that came with the projector and connect the square end of the cable to the projector's USB port.



note

You cannot connect your computer to the projector using only a USB cable. To receive signals from the computer, you must connect it with the VGA cable that came with your projector or a VGA–5BNC cable. Connecting the USB cable lets you use the remote control as a wireless mouse.

For details about using the remote control as a wireless mouse, see page 47.

3. Connect the flat end of the cable to any available USB port on your computer.
4. If necessary, configure your notebook to work with an external mouse.

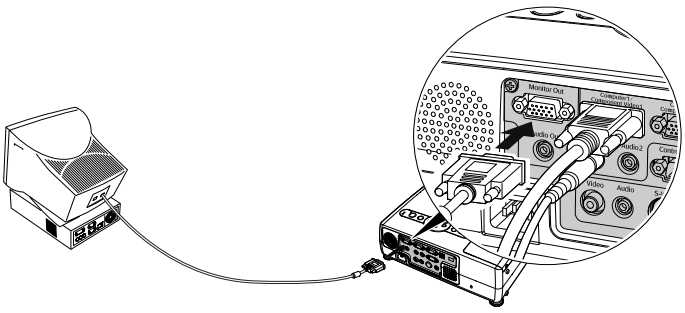
If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

Connecting an External Monitor

If you want to see your presentation close-up as well as on the projection screen, you can connect an external monitor to the projector. This lets you view images on your computer monitor while the projector is in standby mode (plugged in but not turned on) and check your presentation or switch between picture sources even if you've pressed the A/V Mute button on the remote control to turn off projection on the screen.

Simultaneous display is possible only when the computer is connected to the projector's Computer1/Component Video1 port.

Make sure the projector and computer are off. Then connect the monitor's cable to the projector's Monitor Out port, as shown:



If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

note

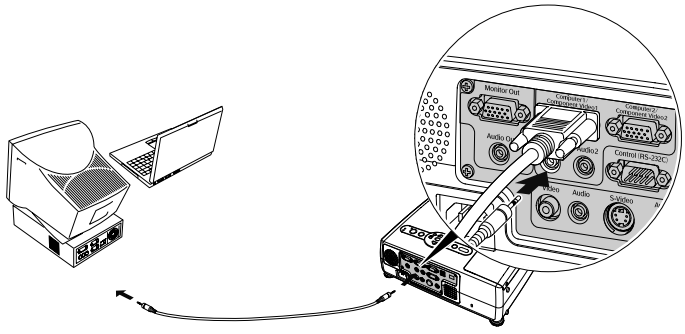
Some LCD monitors may not be able to display the image correctly. If you have trouble displaying the image, connect a multiscan monitor. Also, make sure the computer's refresh rate is set to 65 Hz or greater.

You cannot display video images or configuration and help menus on an external monitor.

Playing Sound Through the Projector

Your computer probably has its own sound system; however, it may not be adequate for your presentation. If you need more volume, you can connect a computer audio cable to take advantage of the projector's built-in speaker. You can obtain a computer audio cable (3.5-mm stereo miniplug cable) from a computer or electronics dealer.

1. Connect one end of the audio cable to the Audio1 jack on the projector.



2. Connect the other end of the audio cable to your notebook's headphone jack or audio-out jack, or your desktop's speaker or audio-out port.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

note

If you've connected two computers to the projector, you can play sound from both. Connect the audio cable for the computer connected to the Computer 2/Component Video 2 *connector to the* Audio 2 *jack on the projector. Connect the other end of the cable to the second computer.*

When you switch sources, the projector automatically plays sound from the new source.

Connecting to Video Sources

You can connect a DVD player, VCR, camcorder, laser disc player, digital camera, gaming console—such as Microsoft Xbox, Sony PlayStation 2, or Nintendo GameCube—or any other compatible video source to your projector. You can connect up to four video devices at one time.

note

The projector does not support TV antenna cable F connectors. However, you can project TV images if you use a VCR as a tuner.

The projector supports HDTV, SDTV, NTSC, PAL, and SECAM, and automatically detects the video format. It can receive composite video, S-video, RGB video, and component video. The type of cable you need depends on the video source:

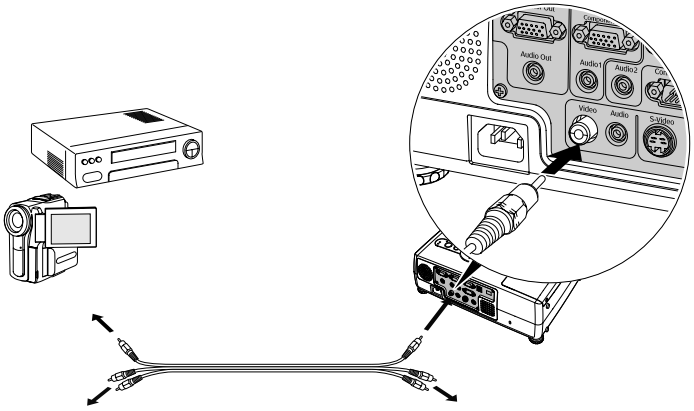
- For composite video, use a commercially-available RCA A/V cable. See page 23.
- For S-video, use the S-video cable supplied with your video device or order one from Epson. See page 24.
- For RGB video, use the VGA computer cable included with the projector. See page 25.
- For component video, you'll need a component video cable. You can purchase one from Epson; see page 26.

After connecting your video device to the projector, you may want to connect an audio cable to play sound from your video equipment through the projector's built-in speaker. See page 27 for instructions.

Connecting a Composite Video Source

If you're connecting a composite video device, use a commercially-available RCA A/V cable. Before starting, make sure the projector and your DVD player or other video source are turned off.

1. Connect the yellow RCA plug on one end of the cable to the projector's yellow Video jack as shown below.



2. Connect the yellow plug on the other end of the cable to the video-out port on your video source.
3. To play sound through the projector, follow the instructions beginning on page 27.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

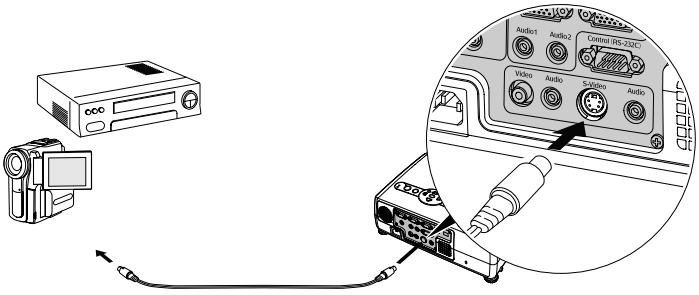
If more than one device is connected to the projector, select Video as the input source after projection starts. See page 32 for details.

Connecting an S-video Source

If your video source has an S-video jack, you can use it to project a higher quality video image. You'll need an S-video cable, which is usually provided with your video source, or you can purchase one from Epson. See page 12 for ordering information.

Before starting, make sure the projector and your DVD player or other video source are turned off.

1. Insert one end of the S-video cable into the projector's S-Video port and the other end into the S-video output port of your video source.



2. To play sound through the projector, follow the instructions beginning on page 27.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

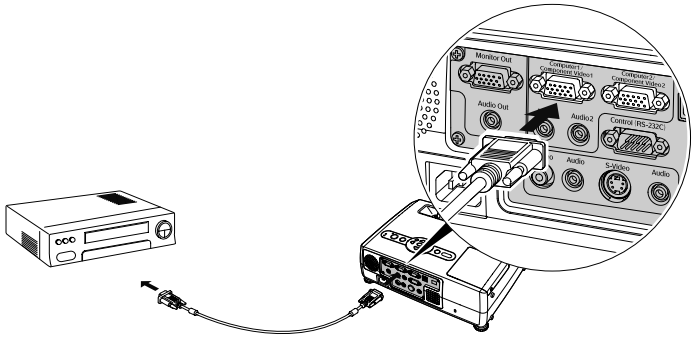
If more than one device is connected to the projector, select S-Video as the input source after projection starts. See page 32 for details.

Connecting an RGB Video Source

Follow these instructions to connect the projector to a video player or satellite receiver that has an RGB video output port using the VGA computer cable that came with the projector.

Before starting, make sure the projector and your DVD player or other video source are turned off.

1. Connect one end of the VGA computer cable to the Computer1/Component Video1 or the Computer2/Component Video2 port on the projector.



2. Connect the other end to the video port on your player.
3. To play sound through the projector, follow the instructions beginning on page 27.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

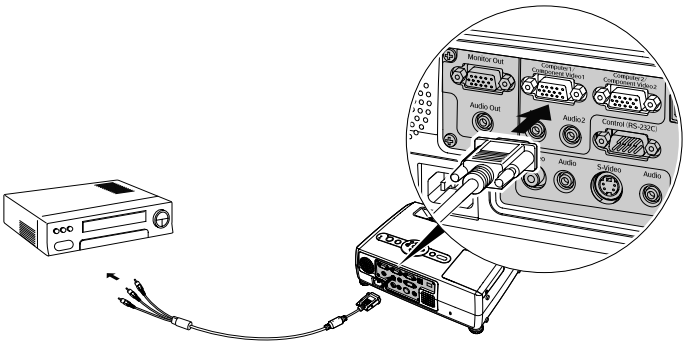
If more than one device is connected to the projector, select Computer 1 (RGB) or Computer 2 (RGB) as the source, depending on which port you used. See page 32 for details.

Connecting a Component Video Source

If your video source has component video connectors, you can use them to project a higher quality video image. You'll need a component video cable (ELPKC19), which can be purchased from Epson. See page 12 for ordering information.

Before starting, make sure the projector and your DVD player or other video device are turned off.

1. Connect the large end of the component video cable to the projector's Computer1/Component Video1 or the Computer2/Component Video2 port.



2. Insert the three ends of the component video cable into the R, G, and B ports on your video source.
3. To play sound through the projector, follow the instructions beginning on page 27.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

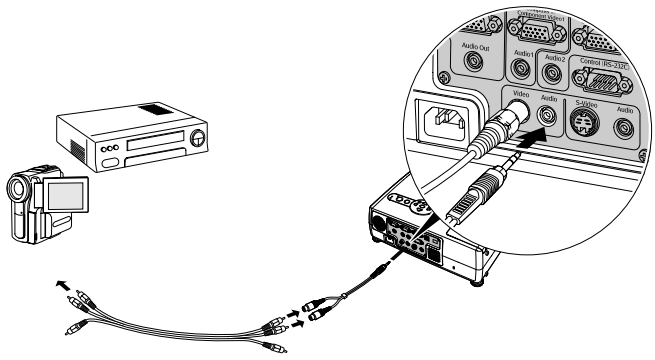
If more than one device is connected to your projector, select Computer 1 (Component Video) or Computer 2 (Component Video) as the source, depending on which port you used. See page 32 for details.

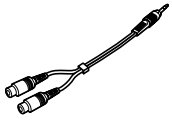
Playing Sound Through the Projector

The projector has a built-in speaker with a maximum output of 5 W. You can play sound from your video equipment through the projector's speaker if your video device has an audio output port.

For RCA-Style Audio Output Ports

Most video devices have an RCA-style audio output port. In this case, use the audio adapter supplied with the projector to connect the projector to a commercially-available A/V cable, as shown below:





Audio adapter

1. Locate the audio adapter that came with your projector.
2. Connect the black audio plug on one end of the adapter to the Audio jack corresponding to your video source. For example, if you've connected your video device to the projector's Video port, connect the adapter to the Audio jack next to it.
3. Connect the red and white plugs on the other end of the adapter to the red and white plugs on the A/V cable.
4. Connect the red or white plug on the other end of the A/V cable to the corresponding color-coded audio output port on your video source.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

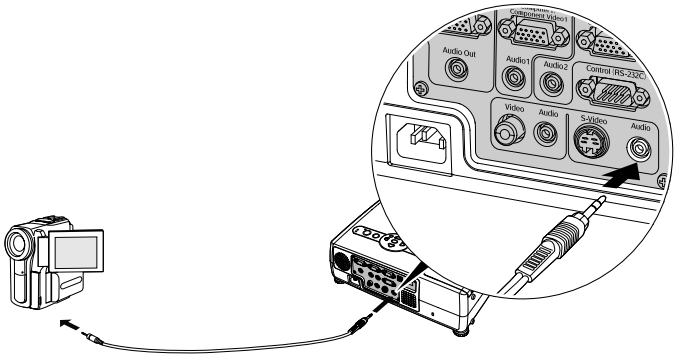
note

Each input port has its own dedicated audio input jack. To play sound from a source, you must connect the audio cable to the correct audio input jack.

When you switch the video source, the projector automatically plays sound from the new source.

For Stereo Mini-Jack Audio Output Ports

Some video devices, especially camcorders, may have a stereo mini-jack audio output port. In this case, use a commercially-available stereo mini jack audio cable to connect to the projector, as shown below:



1. Connect one end of the audio cable to the Audio jack corresponding to your video source. For example, if you've connected your video device to the projector's S-Video port, connect the adapter to the Audio jack next to it.
2. Connect the other end to your video device's audio output port.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 30 for instructions.

note

Each input port has its own dedicated audio input jack. To play sound from a source, you must connect the audio cable to the correct audio input jack.

When you switch the video source, the projector automatically plays sound from the new source.

2 *Projecting*

Once you've set up the projector, you're ready to turn it on, adjust the image, and give your presentation.

Although you can operate the projector without it, the remote control lets you use additional features. See Chapter 3 for instructions on using the remote. This chapter covers the following:

- Turning on the projector and other equipment
- Adjusting the image
- Adjusting the volume
- Shutting down the projector

Turning On Your Equipment

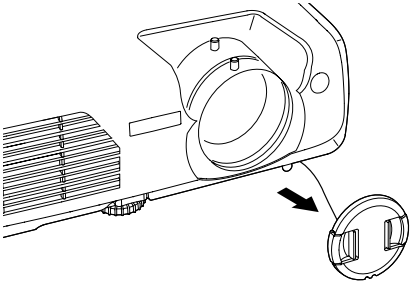
Make sure your projector and other equipment are set up and connected correctly, as described in Chapter 1. Then turn on your projector, as described below.

If you turn on your connected computer or video equipment before starting the projector, the projector automatically detects and displays the image source. If you turn on the projector first, or have multiple pieces of connected equipment, you may have to select the image source manually. See page 32.

Turning On the Projector

Follow these steps to plug in and turn on the projector:

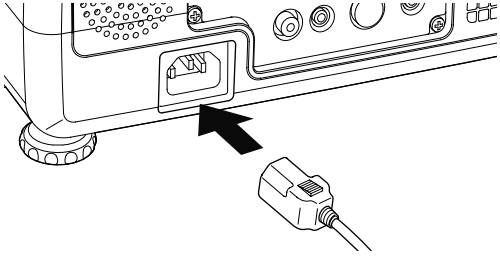
1. Push in the tabs and remove the lens cap.



caution

Do not use the projector with the lens cap in place. The heat generated by the lamp can damage it.

2. Connect one end of the power cord to the projector's power inlet.

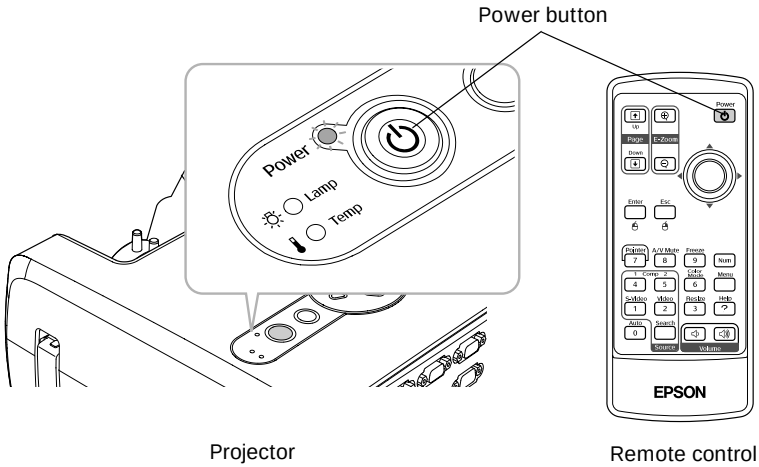


3. Connect the other end to an electrical outlet.

   The Power light on top of the projector turns orange, indicating that the projector is receiving power but not yet turned on. Wait until the light stops flashing but stays orange.

4. Turn on your computer or video source if you have not already.

5. Press the ⏻ Power button on top of the projector to turn it on. (You can also press the ⏻ Power button on the remote control.)



Projector Remote control

   The projector beeps and the Power light flashes green as the projector warms up. The projector lamp comes on in a few seconds. When the Power light stops flashing, you're ready to start.

6. If you don't see your image, press the Source Search button on the projector or remote control repeatedly until you see it.

   (Windows only: If you see a message saying that Windows has found a plug-and-play monitor, click Cancel.)

7. If you are prompted to enter a password, see page 66.

To focus and adjust the image, see page 35. If a projected image fails to appear even after you press the Source Search button, see "What To Do If You See a Blank Screen" on page 33.

note

If you are using the remote control for the first time, be sure to insert the batteries as described on the Quick Setup *sheet.*

If the Direct Power ON feature has been enabled (as described on page 60), you don't need to press the ⏻ Power *button to turn the projector on. Just plug the projector into an electrical outlet. When the* Power *light stops flashing and stays green, the projector is ready to use.*

warning

Never look into the lens when the lamp is on. This can damage your eyes, and is especially dangerous for children.

When you're done with your presentation, shut down the projector as described on page 41. Shutting down the projector correctly prevents premature lamp failure and possible damage from overheating.

Selecting the Image Source

note
The name of the selected image source appears in the upper right corner of the screen.

If you have only one device connected to the projector, the projector should detect it automatically. If you have more than one device connected (for example, if you've connected both a computer and DVD player), you may have to switch between image sources. If you don't see the image you want, press one of the following buttons on the remote control:

- Comp 1
  Press this button to move through the following options: Computer 1 (Auto), Computer 1 (RGB), and Computer 1 (Component Video).
- Comp 2
  Press this button to move through the following options: Computer 2 (Auto), Computer 2 (RGB), Computer 2 (Component Video).
- S-Video
  Press to select S-Video.
- Video
  Press to select Video.

You can also press the Source Search button on the remote control or projector repeatedly until the correct image is projected. If a projected image fails to appear, see the next section for help.

Once you see your image, turn to page 35 for instructions on focusing and making other image adjustments.

What To Do If You See a Blank Screen

If you see a blank screen or a blue screen with the message No Signal after turning on your computer or video source, try the following:

- Make sure the cables are connected correctly, as described in Chapter 1.
- Make sure the Power light is green and not flashing and the lens cap is off.
- Make sure you've selected the correct image source; see page 32. Allow a few seconds for the projector to sync up after pressing the button.
- Check the Signal menu to make sure the correct input source is selected. See page 55.

If you're using a PC notebook:

- Hold down the Fn key and press the function key that lets you display on an external monitor. It may have an icon such as or it may be labelled CRT/LCD. Allow a few seconds for the projector to sync up after pressing it. Check your notebook's manual or online help for details.

  On most systems, the or CRT/LCD key lets you toggle between the LCD screen and the projector, or display on both at the same time.

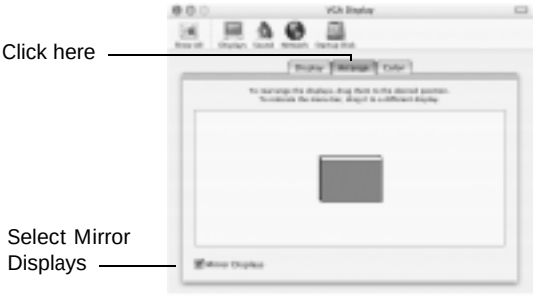
- If you're projecting from a notebook and you don't see the same image on the projection screen and computer screen, check your monitor settings to make sure both the LCD screen and the external monitor port are enabled.

  From the Control Panel, open the Display utility. Click the Settings tab, then click Advanced. The method for adjusting the settings varies by brand; you may need to click a Monitor tab, then make sure the external Monitor port is set as your primary display and/or enabled. See your computer's documentation or online help for details.

If you're using a Macintosh with OS X:

You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:

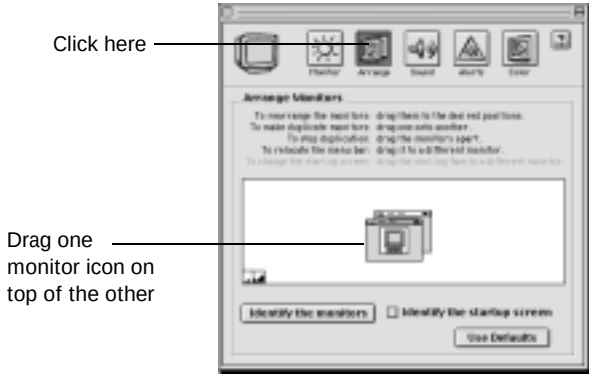
1. From the Apple menu, select System Preferences, then click Displays.
2. Select VGA Display or Color LCD, click Arrangement or Arrange, and make sure Mirror Displays is checked.



If you're using a Macintosh with OS 9.x or earlier:

You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:

1. From the Apple menu, select Control Panels, then click Monitors or Monitors and Sound.
2. Click the Arrange icon.



3. Drag one monitor icon on top of the other.

If the Arrange option isn't available, you may need to select one of the Simulscan resolution settings:

1. Click the Monitor icon, if necessary.

2. Select a Simulscan resolution, as shown. (Allow a few seconds for the projector to sync up after making the selection.)

Adjusting the Image

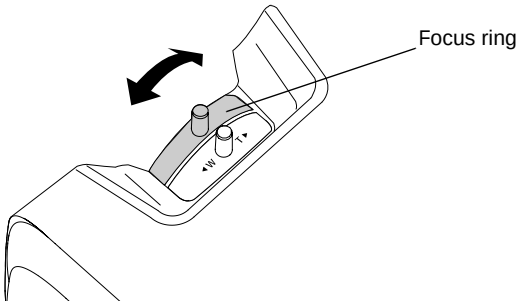
Once you see your image, you'll need to make certain adjustments:

- To focus or zoom your image, see the next section.
- If the image is too high or too low, you can reposition it. See page 37.
- If the image isn't square, see page 38.
- To adjust image brightness, see page 39.
- If a computer image displays incorrectly, see page 39.
- To change the color mode for your image and surroundings, see page 39.

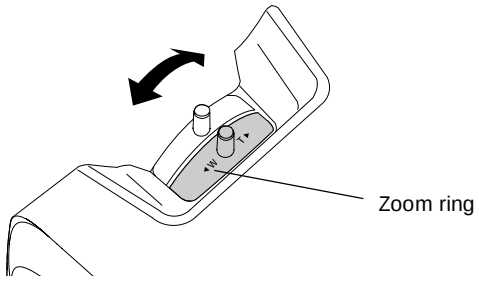
You can make many other adjustments to the image—such as changing the brightness, contrast, and aspect ratio—using the projector's menu system. See Chapter 4 for more information.

Focusing and Zooming Your Image

Rotate the focus ring to sharpen the image.



Rotate the zoom ring to reduce or enlarge the image.

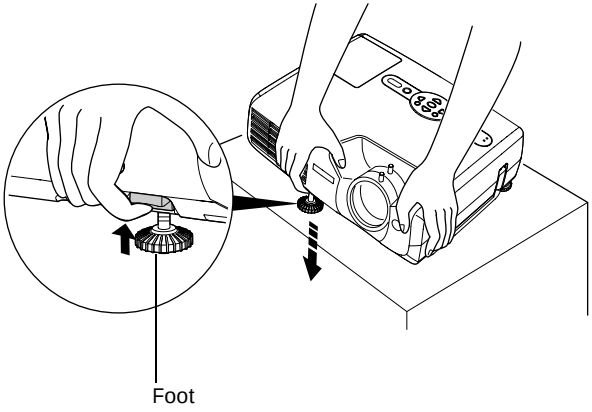


You can also change the image size by moving the projector closer to or farther away from the screen. You can use the E-Zoom buttons on the remote control to zoom in on a portion of the image. See page 45 for instructions.

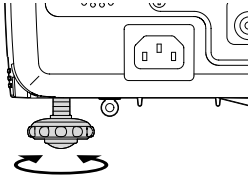
Adjusting the Height of Your Image

If the image is too low, you can raise it by extending the projector's front adjustable foot.

1. Stand behind the projector. Press up on the blue foot release lever and lift the front of the projector to extend the front adjustable foot.



2. Once the image is positioned where you want, release the lever to lock the foot in position.
3. To fine-tune the height of the image, rotate the feet at the back of the projector.

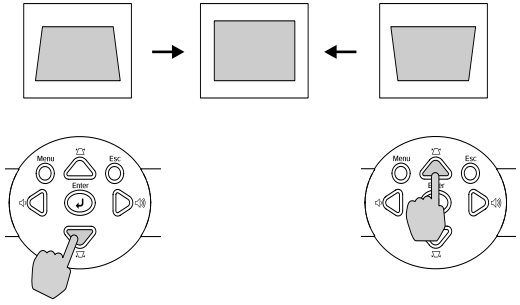


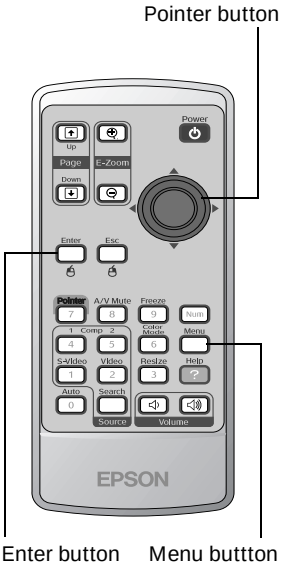
If the image is no longer rectangular after raising it, see the next section.

Adjusting the Image Shape

The projector automatically corrects images that are distorted when the projector is tilted up or down (up to a 15° tilt). The Keystone window appears on the screen while the projector makes the correction. If the projected image still isn't rectangular or has a "keystone" shape, do one or more of the following:

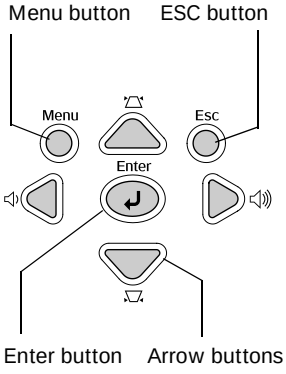
- If your image looks like or , you've placed the projector off to one side of the screen, at an angle. Move it directly in front of the center of the screen, facing the screen squarely.
- If your image looks like or , the Auto Keystone feature may have been disabled or you may need to manually adjust the keystone correction value. (Auto Keystone is not available when you're using ceiling or rear projection.) Follow the directions below:
  - To turn on Auto Keystone, press the Menu button on the remote control. Use the ◌ pointer button on the remote control (or the arrow buttons on the projector) to select the Setting menu, then press Enter. If Auto Keystone is OFF, use the ◌ pointer button to highlight this option and press Enter. Select ON in the Auto Keystone window that appears and press Enter to save your changes. Exit the menu by pressing the Menu button.
  - To manually adjust the keystone correction value, press the or buttons on the projector to correct the shape of the image. After correction, your image will be slightly smaller.





note

You can also use the buttons on the projector to access the menu system:



You can also make keystone adjustments using the projector's Setting menu. See page 58.

Adjusting the Brightness

The brightness of an image depends on the source you are projecting and the amount of light in the room. If the image is too bright or not bright enough, here are two ways you can adjust it:

- Change the Brightness setting in the Image menu. See page 54.
- Select Low or High for the Brightness Control option in the Setting menu. (See page 58.) Low brightness mode extends the life of the lamp and decreases the fan noise.

Correcting Computer Images

If you've connected a computer and the image doesn't look right, or it doesn't fit properly on the screen, press the Auto button on the remote control or the Enter button on the projector to automatically reset the projector's tracking, sync, resolution, and position settings. (You must be projecting an image for this button to have any effect.) The screen turns black for a few seconds, and then the image appears again. After the image reappears, it takes about three seconds for the correction to take effect. Don't press any other buttons while this is happening.

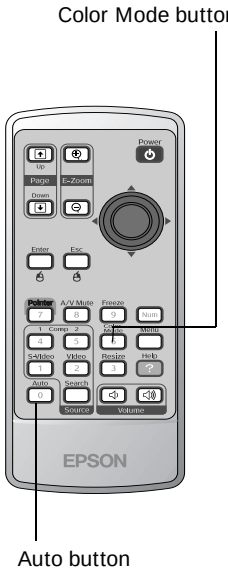
note

If the Auto Setup *option in the Signal menu is enabled, the projector automatically corrects computer images. Normally you don't have to press the* Auto *button. See page 56 for details.*

Adjusting the Color Mode

You may want to adjust the color mode to select a setting that is appropriate for the image you're projecting and the environment in which you're projecting it.

If you're projecting computer or RGB video images, the default color mode is Presentation, which is appropriate for presentations in bright rooms. For other images, the default color mode is Dynamic, which optimizes video images using natural colors.



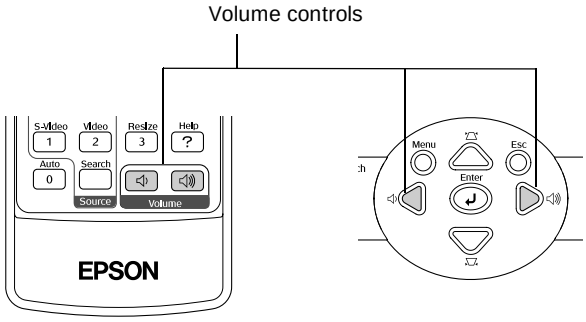
The following table lists the six color modes available.

Color mode	Description
Dynamic	Best for projecting movies with vivid color in bright rooms. This is the default mode for projecting from video devices other than RGB video.
Presentation	Use when you're projecting a presentation in a bright room. This is the default mode when you're projecting from a computer or RGB video device.
Theatre	Use when projecting movies in a dark room.
Living Room	Best for playing video games or watching TV in a bright room.
sRGB	Use when projecting computer or video images conforming to the sRGB color standard. Make sure your computer or video device signal is also set to sRGB.
Blackboard	Choose this fixed color mode when you need to project against a green blackboard. Lets images retain their natural tints.

To change the color mode, press the Color Mode button on the remote control until you see the mode you want. The currently selected setting appears in the upper right corner of the screen. You can also use the projector menu system to change the color mode in the Image menu (see page 54).

Adjusting the Volume

You can use the buttons on the remote control or projector to increase or decrease the volume for the projector's built-in speaker or external speakers connected to the projector. Press the 🔊 button to increase the volume, or the 🔉 button to decrease it. A volume gauge appears on the screen while the volume is being adjusted.



note

You can also adjust the volume using the projector's Setting menu. See page 57 for details.

You must adjust the volume separately for each input source.

Shutting Down the Projector

When you've finished using the projector, follow the recommended procedure to shut it down. This extends the life of the lamp and protects the projector from possible overheating.

1. If you're using a computer, shut it down first.
2. To turn off the projector, press the ⏻ Power button on the projector or remote control.

   You see this confirmation message: (If you don't want to turn it off, press any other button or wait a few seconds until it disappears.)

caution

Never unplug the projector without first turning it off, as described in this section. If the Direct Power ON feature has been enabled (as described on page 60), you must still follow the steps in this section to turn the projector off.

note

When the projector has not received any input signals for 30 minutes, it automatically turns off the projector lamp and enters "sleep mode." This conserves electricity, cools the projector, and extends the life of the lamp. If you are done using the projector, unplug the power cord. If you want to start projecting again, press the ⏻ Power *button. You can turn sleep mode on or off through the Extended menu. See page 59.*

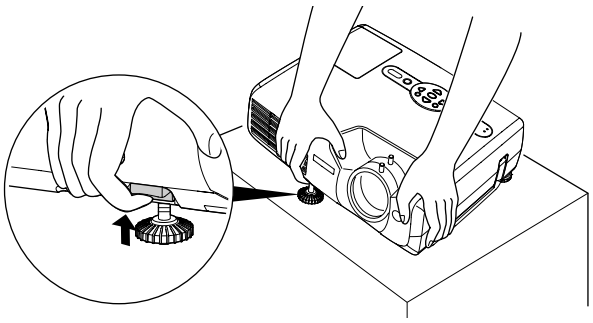
caution

To avoid damaging the projector or lamp, never unplug the power cord when the Power *light is green or flashing orange.*

3. Press the ⏻ Power button again. The lamp turns off, and the Power light flashes orange for about 20 seconds as the projector cools down. When the projector has cooled, it beeps twice to indicate that power is off. The Power light stays orange and the exhaust fan shuts off.

   If you want to turn the projector on again, wait until the orange light stops flashing. Then press the ⏻ Power button.

4. Press up on the blue foot release lever and lower the projector to retract the front adjustable foot, as shown.



5. Replace the lens cap and unplug the power cord.
6. Turn off and disconnect any equipment plugged into the projector.

3 Using the Remote Control

The remote control lets you access your projector's features from anywhere in the room—up to 20 feet away. For example, you can turn the projector on and off, freeze the presentation, zoom in on a portion of your image, and access the menu system. (The projector menus let you adjust many projector settings; see Chapter 4.)

If you're using a computer and you've connected the mouse cable as described in Chapter 1, you can use the remote control as a wireless mouse.

note

Avoid sunlight and fluorescent light, as these may interfere with signal reception.

When using the remote control, stand within 20 feet of the projector. Point the remote control either at the front or back of the projector or at the screen (the projector's front sensor can detect signals bounced off the screen). Press the button for the function you want to use.

This chapter covers the following information:

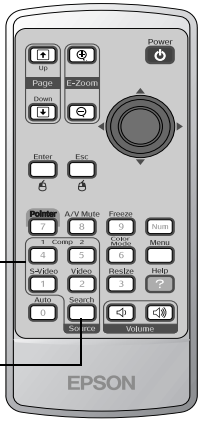
- Controlling the picture and sound
- Using the remote control as a wireless mouse
- Replacing the remote control batteries

Controlling the Picture and Sound

You can use the remote control to select your source, temporarily turn off the picture and sound, freeze the action, or zoom in on the picture. Make sure you have set up your projector and connected any equipment as described in Chapter 1.

Switching Between Picture Sources

Select a source



Moves through all the input sources in sequence

If you've connected your projector to more than one computer and/or video source, you can use the buttons on the remote control to switch between the different sources.

- Press the Comp1 button to select the computer or video source connected to the projector's Computer1/Component Video1 port.
- Press the Comp 2 button to select the computer or video source connected to the projector's Computer2/Component Video2 port.
- Press the S-Video button to select a video source connected to the projector's S-Video port.
- Press the Video button to select a video source connected to the projector's Video port.
- Press the Source Search button to move successively through all of the input sources.

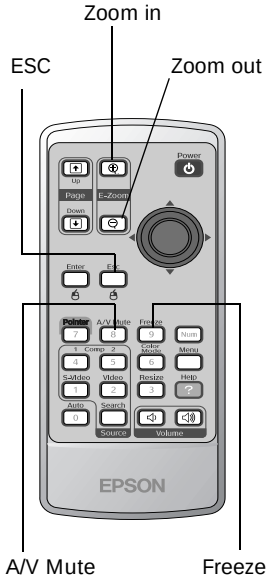
After you select a source, the screen goes dark for a moment before the image appears. The name of the selected source (such as Computer1 or S-Video) appears briefly on the screen.

Turning Off the Picture and Sound

Press the A/V Mute button on the remote control to turn off the image and sound and darken your screen. This is useful if you want to temporarily re-direct your audience's attention without the distraction of a bright screen.

- To turn off the picture and sound, press the A/V Mute button. The screen goes dark.
- To turn the image and sound back on, press the button again, or press Esc.

You can create an image, such as a company logo or a picture, to display on the screen whenever you press the A/V Mute button. See page 63 for more information.



Stopping Action

Press the Freeze button to stop the action in your video or computer image and keep the current image on the screen. The sound will continue, however. Also, because the source continues to transmit signals, you won't resume the action from the point you paused it.

Press the Freeze button again or press Esc to restart it.

Zooming Your Image

Follow these steps to zoom in on a portion of the image:

1. Press the E-Zoom ⊕ button on the remote control.

   You see a crosshair indicating the center of the zoom-in area.

2. Use the ◌ pointer button to position the crosshair in the area you want to enlarge.
3. Continue pressing the E-Zoom ⊕ button to enlarge the selected area up to 4 times.

4. While the image is enlarged, you can:
   - Use the ◌ pointer button to pan about.
   - Press the E-Zoom ⊖ button to zoom out.
5. When you're done, press the Esc button to return to the original size.

note

You must be projecting component, composite, or S-video images to change the aspect ratio.

You can also change the aspect ratio using the projector's Signal menu. See page 55 for details.

Changing the Image's Aspect Ratio

If you're projecting a widescreen format image, you can use the Resize button on the remote control to change the aspect ratio. Follow these steps:

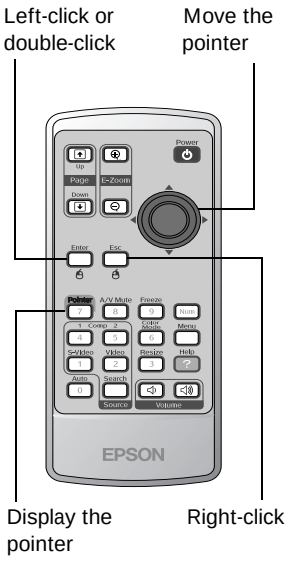
1. Press the Resize button once to change the aspect ratio to 16:9 for widescreen format.
2. Press it again to return to 4:3 aspect ratio.

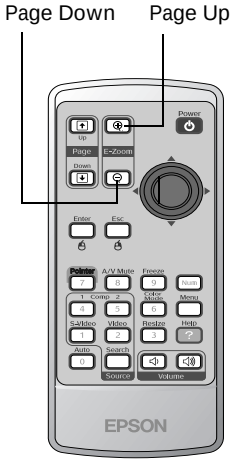
Using the Remote Control as a Wireless Mouse

When you use the remote control as a wireless mouse, you can control your computer or click through slideshow-style presentations (such as PowerPoint) from up to 20 feet away. This gives you more flexibility, since you don't need to stand near your computer to change slides.

To control your computer with the remote, make sure you have connected the USB cable as described on page 19.

- To display the mouse pointer, press the Pointer button.
- To move the pointer on the screen, aim the remote at the screen and use the ◌ pointer button.
- To click (or left-click), press the Enter button.
- To right-click, press the Esc button.
- To double-click, press the Enter button twice.
- To click and drag, press down and hold the Enter button and use the ◌ pointer button to move where you want to drag.
- To advance slides in a PowerPoint presentation in Slide Show mode, press the Page up or Enter button on the remote control. Press the Page down or Esc button to go back a slide.

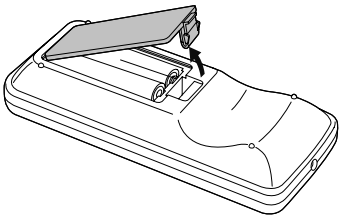




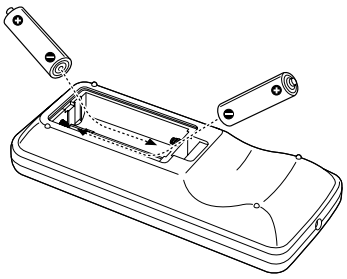
Replacing the Batteries

The remote control uses two AAA alkaline batteries. Follow these steps when you need to replace them:

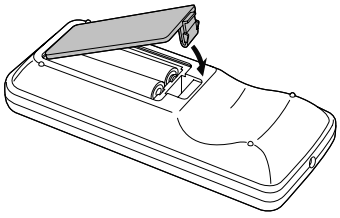
1. Press in the tab to remove the battery cover.



2. Remove the old batteries, then insert the new ones as shown.



3. Replace the battery cover. (It should click into place.)



note

The remote control automatically shuts off when it detects a button being pressed more than 30 seconds. This conserves battery life. It can be helpful, for example, when the remote is in a carrying case and the ⏻ Power *button is accidentally pushed.*

caution

When replacing batteries, take the following precautions:

- *Replace the batteries as soon as they run out. If a battery leaks, wipe away battery fluid with a soft cloth. If fluid gets on your hands, wash them immediately.*
- *Do not expose batteries to heat or flame.*
- *Dispose of used batteries according to local regulations.*
- *Remove the batteries if you won't be using the remote control for a long period of time.*

4 *Fine-tuning the Projector*

You can use the Menu button on the projector or remote control to access on-screen menus to adjust the image, sound, and other features. This chapter covers the following information:

- Using the menu system
- Adjusting image colors and clarity
- Adjusting the input signal
- Customizing projector features
- Selecting projector setup options
- Viewing lamp usage and other information
- Using the projector's security features
- Restoring the default settings

Using the Projector's Menu System

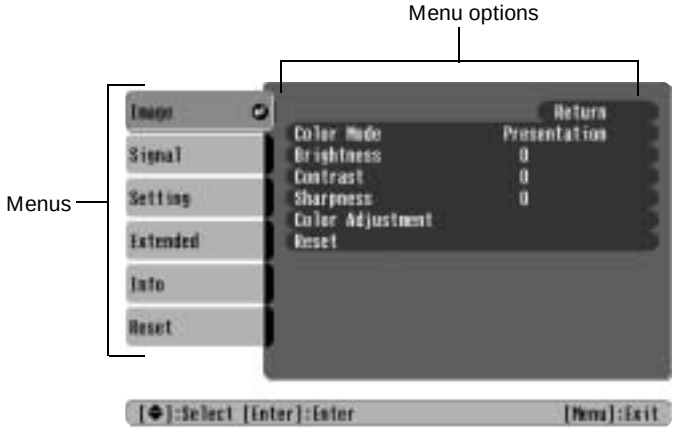
The six projector menus let you adjust and customize the projector features:

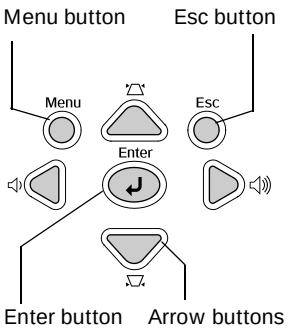
- The Image menu lets you modify the colors of the projected image and fine-tune brightness, contrast, and sharpness.
- The Signal menu lets you make adjustments to the input signal. You can select your input source, change the image position and aspect ratio, and adjust tracking and sync for computer images.
- The Setting menu lets you customize the way you use the projector. It allows you to adjust the volume and keystone correction, set lamp brightness to high or low, select the shape of the mouse pointer, and disable buttons on the projector while you are projecting.
- The Extended menu lets you customize the way you set up the projector. Among the options, you can select the menu language, set rear or ceiling projection, and record a custom image or logo to be displayed as the startup screen or whenever you press the A/V Mute button on the remote control.
- The Info menu provides information about lamp status and computer or video settings.
- The Reset menu lets you restore the projector's factory default settings.

Changing Menu Settings

Use the buttons on the remote control to access the menus and change settings. Follow these steps:

1. Press the Menu button on the remote control or projector to display the menu screen:



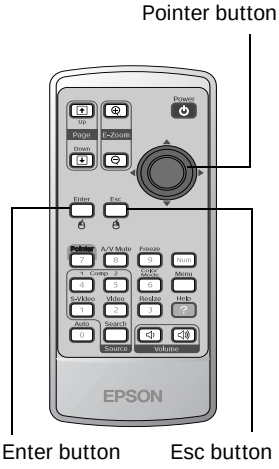


The six menus are listed on the left, and the options available for the highlighted menu are shown on the right.

2. Use the pointer button on the remote control or the up and down arrow buttons on the projector to scroll through the menu list. When you've highlighted the desired menu, press the Enter button to select it.

   The highlight moves to the first option for that menu.

3. Use the pointer button or the up and down arrow buttons to scroll through the list of options. (The options available depend on which source is selected.)



4. After highlighting the option you want to adjust, use the ◌ pointer button on the remote control or left or right arrow buttons on the projector to change the setting. In some cases, you may have to press the Enter button to see a sub-screen for changing the setting.
   - Press the left or right side of the ◌ pointer button or the left or right arrow buttons on the projector to adjust a slider bar.
   - To select from two or more settings, use the ◌ pointer button or arrow buttons to highlight the desired setting, then press Enter.
5. Press the Esc button to return to the previous menu or to close the menu system if you are at the main menu. Your changes are saved automatically.
6. Press the Menu button to exit the menu system.

Adjusting Colors and Clarity

The Image menu lets you make adjustments to the colors of the projected image and fine-tune brightness, contrast, and sharpness. The options available depend on which image source is selected:

Computer (analog-RGB) and RGB video

Component, composite, and S-video

Follow these steps to adjust the appearance of your image:

1. Press the Menu button. You see the main menu.
2. Press Enter to select the Image menu.

3. Use the ◌ pointer button (or the up and down arrow buttons) and press Enter to select any of the following options:

   - Color Mode
     Corrects the vividness of image color. You can select from the following six settings, and save a different one for each computer and/or video source:

     Dynamic: For projecting movies or playing video games in vivid color in a bright room (the default when projecting component, composite, and S-video images).

     Presentation: For presentations in bright rooms (the default when projecting computer or RGB video images).

     Theatre: For optimizing movie images with natural color in a dark room.

     Living Room: For playing video games and watching TV in a bright room.

     sRGB: For standard sRGB computer displays.

     Blackboard: Fixed color mode for projecting against a green blackboard.

   - Brightness
     Lightens or darkens the overall image.

   - Contrast
     Adjusts the difference between light and dark areas.

   - Color Intensity (component, composite, and S-video)
     Adjusts the depth or intensity of the image colors.

   - Tint (component, composite, and S-video)
     Adjusts the balance of green to magenta in the image.

   - Sharpness
     Sharpens or softens the image.

   - Color Adjustment
     Adjusts the temperature and intensity of red, green, and blue.

4. When the image is set correctly, press Esc or Menu. Your settings are automatically saved.

note
You can also select High *or* Low *brightness mode in the Setting menu. See page 58.*

Adjusting the Input Signal

Although the projector normally detects and optimizes the input signal automatically, you can use the Signal menu to make manual adjustments. In addition to changing the position of the projected image, you can correct tracking and sync for computer images, or change the aspect ratio to widescreen format for video images.

1. Press the Menu button. You see the Image menu.
2. Select the Signal menu. You see one of the following screens:

Computer (analog RGB) and RGB video

Component video

Composite video and S-video

3. Press Enter. Then use the ◌ pointer button (or up and down arrow buttons) and the Enter button to select any of the following options:

   - Auto Setup (computer images)
     Leave this setting ON to automatically optimize the computer image. Turn it off if you want to adjust tracking and sync manually.
   - Tracking (computer images)
     Removes unwanted vertical lines from a computer image by matching the projector's internal clock to various computer signals. See page 87 for more information about adjusting the tracking.
   - Sync (computer images)
     Corrects fuzziness or screen flicker by synchronizing the projector with the tracking signal sent from the computer. See page 87 for more information about adjusting the sync setting.
   - Position
     Use the ◌ pointer button or arrow buttons to move the image on the screen left, right, up, or down.
   - Computer 1 Input
     Selects the signal from equipment connected to the Computer1/Component Video1 port. If your image colors look wrong, try changing this setting from Auto to one of the following: Computer 1 for computer or RGB video sources, or Component Video 1 for component video sources.
   - Computer 2 Input
     Selects the signal from equipment connected to the Computer2/Component Video2 port. If your image colors look wrong, try changing this setting from Auto to one of the following: Computer 2 for computer or RGB video sources, or Component Video 2 for component video sources.

note

If Auto Setup is turned off, you can still automatically adjust tracking and sync for computer images by pressing the Auto *button on the remote control or the* Enter *button on the projector's control panel.*

If you have repositioned your computer image with the Position *setting or made changes to the* Tracking *or* Sync *settings, you can press the* Auto *button on the remote control to restore the default settings.*

If you're adjusting tracking and sync manually, adjust tracking first for best results.

- Video Signal (composite and S-video)
  Leave this setting at Auto unless you are using a 60-Hz PAL system (select PAL60).
- Resize (video)
  Sets the image's aspect ratio (ratio of width to height) to 4:3 for letterbox video content and to 16:9 for widescreen video content.

4. When you're finished adjusting the signal settings, press Esc or Menu.

Customizing Projector Features

The Setting menu lets you customize the way you use the projector, from adjusting lamp brightness and speaker volume to changing the shape of the mouse pointer.

1. Press the Menu button.
2. Select the Setting menu.

3. Press Enter. Then use the ◌ pointer button (or up and down arrow buttons) and the Enter button to set the following options:

   - Keystone
     Adjusts a distorted image from a trapezoid shape to rectangular. (The corrected image will be smaller.)
   - Auto Keystone
     Automatically adjusts a distorted image from a trapezoid shape to rectangular when the projector's foot is extended or retracted. (Not available when you're projecting from the ceiling or using rear projection.) Select ON or OFF.
   - Operation Lock
     When turned on, this function disables all projector buttons except the ⏻ Power button. Changes to this setting take effect after you restart the projector. (After you turn off the projector, wait for the Power light to turn a steady orange before turning it on again.)
   - Pointer Shape
     Lets you select from three different pointer shapes.
   - Brightness Control
     Select Low lamp brightness when the projection is too bright for the room. The Low setting also reduces electricity consumption and fan noise. Select High to project the maximum brightness. (Also check the Brightness setting in the Image menu; see page 54.)
   - Volume
     Adjusts the volume for the projector's speaker.

4. When you're finished, press Esc or Menu.

note

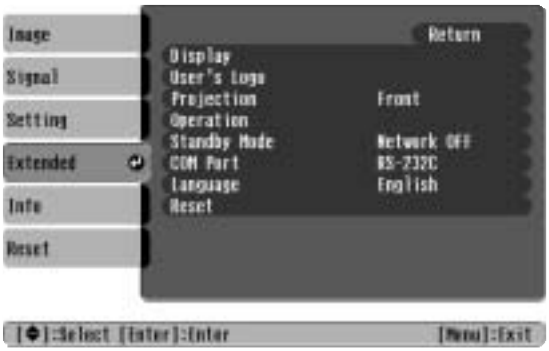
If your image is still distorted after you perform keystone correction, decrease the Sharpness *setting in the Image menu.*

To cancel the Operation Lock function from the projector, press the Enter *button for about seven seconds.*

Selecting Projector Setup Options

Use the Extended menu to customize the way you set up the projector. You can configure the projector for rear and/or ceiling projection, change the language for the menus and messages, set the screen background color, capture and store a custom image or logo for the startup screen, and set up the projector for network use.

1. Press the Menu button.
2. Select the Extended menu. You see the features and their settings on the right side:



3. Press Enter. Then use the ◌ pointer button (or the up and down arrow buttons) and the Enter button to set the following options:

   - Display

     Message: Lets you turn screen messages on or off.

     Background Color: Sets the screen background to Black, Blue, or Logo when the A/V Mute button is pressed.

     Startup Screen: Enables or disables display of the startup screen when the projector is turned on. Either the Epson logo or your own logo (if you've created one, as described on page 63) appears.

   - User's Logo

     Let's you record your own user's logo. See page 63 for more information.

note

The Startup Screen *option must be turned on if you want to display a user's logo.*

A user's logo cannot be created and the Startup Screen *option cannot be turned off if the* User's Logo Protect *feature has been turned on. See page 65.*

- Projection

  Front: Projector is in front of the screen.

  Front/Ceiling: Projector is in front of the screen, mounted upside-down from the ceiling.

  Rear: Projector is behind the screen.

  Rear/Ceiling: Projector is behind the screen, mounted upside-down from the ceiling.

- Operation

  Direct Power: When this feature is enabled, projection starts as soon as you plug in the power cord. You don't have to press the ⏻ Power button.

  Sleep Mode: When this feature is enabled, the projector lamp automatically turns off when the projector has not received any input signals for 30 minutes. This conserves electricity, cools the projector, and extends the life of the lamp. To resume projecting, press the ⏻ Power button.

- Standby Mode

  Set to Network ON to monitor your projector over a network and perform other network functions when the projector is in standby mode.

- COM Port

  Normally you don't have to change this setting. Both USB and RS-232C let you use the remote control as a wireless mouse. RS-232C is also used for ASCII control codes and to control the projector from a computer with the EMP Link 21L software, which can be downloaded from the Epson Support Site. If you change the setting, turn the projector off and then on again to enable it.

- Language

  Select the language to be used for projector menus and messages.

4. When you're finished, press Esc or Menu.

note

When Direct Power *is turned on, turn the projector off as you would normally. See page 41 for instructions.*

When Direct Power *is enabled, it's a good idea to unplug the projector after turning it off. Otherwise the projector will turn on automatically when power is restored after a power failure.*

Viewing Lamp Usage and Other Information

Use the Info menu to view information about the display settings of your computer and the number of hours the lamp has been used.

1. Press the Menu button and select the Info menu. You see one of the following menus:

Computer (analog RGB, digital RGB, RGB Video/Component video

Video (Composite video, S-Video)

- Lamp Hours
  Displays the number of hours the lamp has been used. The life span of the lamp ranges from about 2000 hours in High brightness mode to about 3000 hours in Low brightness mode. If the number shown is close to 2000 or the information is displayed in red, make sure you have a spare lamp handy.
- Source
  Displays the input source currently being projected.
- Input Signal (computer, RGB video, and component video)
  Displays the input signal setting.
- Resolution (computer, RGB video, and component video)
  Displays the input resolution.
- Video Signal (composite and S-video)
  Displays the video signal format.

note

You can make changes to many of the signal settings on the Signal menu. See page 55 for details.

note

The lamp usage timer doesn't register until you've used the lamp for at least 10 hours.

- Refresh Rate (computer, RGB video, and component video) Displays the refresh rate.
- Sync Info (computer, RGB video, and component video) Provides information that may be needed by the service technician.

2. When you're finished, press Esc or Menu.

Using the Projector's Security Features

To prevent unauthorized use of the projector, you can do the following:

- Create an identifying user logo that is displayed at startup and/or when the A/V Mute button is pressed
- Assign a password; this can be disabled for a set period if you want to loan the projector to someone
- Disable the projector's buttons; this is useful, for example, if you're projecting in a classroom and you want to ensure that no one touches the projector's buttons while you're using the remote control

If you create a user's logo for the projector, you can lock the logo on so it is displayed as the startup screen and/or AV/Mute screen. Unauthorized users cannot turn it off or change it. This feature is intended to discourage theft and provides a way to identify the projector should it be stolen.

If you assign the projector a password, a screen appears requesting the password whenever the projector is turned on. If you enter the password incorrectly three times in succession, the projector's operation is locked and you'll need to disconnect the power cord, then reconnect it to redisplay the password screen. If you enter the incorrect password 30 times in succession, the projector is locked and you'll need to contact Epson to unlock it. See "Where To Get Help" on page 91.

note

If you enable the password before you set one and you see the prompt to enter the password, enter the default password 0000 *to proceed.*

If someone else will be using the projector for awhile but you want to make sure that person returns it by a certain time, you can temporarily disable the password for a set period. When that time has elapsed, the password is reactivated and must be entered before the projector can be used.

When you enable the Operation Lock feature, all of the projector's buttons are disabled except the ⏻ Power button.

Creating Your Own Screen Logo

You can transfer any image on your computer to the projector, and then use it as the startup screen and/or the screen that is displayed when you press the A/V Mute button. The image can be a company logo, slogan, photograph, or any other image you want to use. The projector considers this image the "User's Logo."

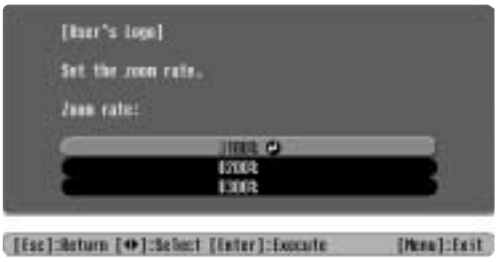
Follow these steps to capture the image and transfer it to the projector:

1. Display the image you want to use on the projector. You can use an image from either a computer or video source, such as a VCR.
2. Press the Menu button and select the Extended menu.

note

If the User's Logo Protect *option is* ON*, you see a message that the logo cannot be recorded. You'll need to disable the* User's Logo Protect *option before you can create or change the user's logo. See page 65.*

3. Use the ◌ pointer button (or the down arrow button) and press Enter to select User's Logo.
4. When you see a message asking if you want to use the present image as a user's logo, select Yes and press Enter. A selection box displays over the image.
5. Use the ◌ pointer button on the remote control or the arrow buttons on the projector to select the area of the image you want to use. Once you have selected the area, press Enter.
6. When you see the message Select this image?, choose Yes and press Enter. If you want to change the area selected, select No, press Enter and repeat steps 4 through 6.
7. When you see this screen, select a zoom rate (display size), and then press Enter.



8. When you see the message Save image as user's logo?, select Yes and press Enter. Saving the logo takes a few seconds. Do not use the projector or other sources (computer, video, etc.) while the logo is being saved.
9. When you see the message Completed, press Esc.
10. To display the logo as the background screen when the A/V Mute button is press, select the Display menu and press Enter.
11. Select Background Color and press Enter. Then select Logo and press Enter.
12. When you're finished, press Menu to exit the menus.

note

The default setting for the Startup Screen *option in the* Display *menu is* ON. *If the* Startup Screen *is set to* OFF, *the logo will not display at startup.*

If the User's Logo Protect *option has been set to* ON, *the* Background Color *setting cannot be changed. You need to turn the protect function off first. See page 65 for details.*

Once you've saved a user's logo, you cannot reset the logo setting to its factory default (no logo).

Setting a Password

1. Press the Freeze button on the remote control for about 5 seconds until you see the Password Protect menu:

2. Select Password and press Enter. You see the message Change the password?
3. Select Yes and press Enter.
4. Hold down the Num key on the remote control and use the numeric keypad to enter a 4-digit password.

   The password will be displayed as ****. After you enter the last digit, a confirmation screen appears. Enter the password again.
5. After you finish setting the password, press the Esc button to return to the Password Protect menu.

Make a note of the password and keep it in a safe place in case you forget it.

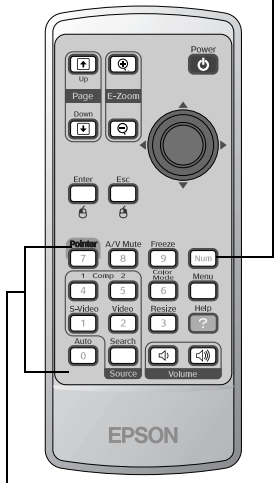
note

If a password has already been set, you see the Password Protect Release screen. See "Starting the Projector with a Password" on page 66.

Turning On the Password and User's Logo

1. To enable the password, press the Freeze button on the remote control for about 5 seconds until you see the Password Protect menu
2. Select Power ON Protect and press Enter.
3. Select ON and press Enter. Then press Esc.

Hold down this button to activate the numeric keypad



Use these buttons like a numeric keypad to enter the password

note

If you make a mistake entering the time, press the Esc *button and enter the time again.*

4. If you want to disable the password temporarily, select Timer and press Enter. Then hold down the Num button while you use the numeric keypad to enter the number of hours (from 0 to 9999) that you want the password feature disabled. If you want the projector to request the password every time it is turned on, set the timer to 0H. Press Enter when you're done.

   The countdown for the elapsed time begins as soon as you close the Password Protect menu. (You can check the elapsed time in this menu next to Time elapsed.)

5. To enable your screen logo, select User's Logo Protect and press Enter. Select ON and press Enter.

   When this feature is on the logo appears whenever the projector is turned on (if the Startup Screen is enabled in the Extended menu; see page 59) and as the A/V Mute screen (if you selected the Logo as the Background Color in the Extended menu). None of the User's Logo features can be changed when the User's Logo Protect function is enabled.

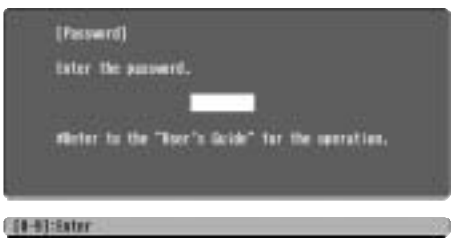
6. Press Menu to close the Password Protect menu.

If you lose the remote control, you will not be able to enter the password, so keep the remote control in a safe place at all times.

When the period defined in the Time-elapsed setting has passed, and the password is entered correctly, the elapsed time will be reset to 0 and the countdown will start again. Remember to disable or change this setting when you need to.

Starting the Projector with a Password

When the password function is enabled, you see this screen when you turn on the projector:



Press down the Num button on the remote control as you use the numeric keypad buttons to enter the password. Once you have entered the password correctly, the password screen closes, and projection begins.

If the password is not correct, you see the message Wrong password. Please try again. If you enter an incorrect password three times in succession, you see the message The projector's operation will be locked. Request code xxxxx and the projector switches to standby mode for approximately 5 minutes. Write down the request code. Then disconnect the projector's power cord from the electrical outlet, reconnect it, and turn the projector back on.

When you see the Password Protect Release screen again, you can try to enter the correct password.

If you have forgotten the password, contact Epson with the request code number that appears in the Password Protect Release screen for assistance. See "Where To Get Help" on page 91.

If you enter an incorrect password 30 times in succession, the projector remains locked and you must contact Epson to unlock it.

Disabling the Projector's Buttons

When you enable the Operation Lock function, all the projector's buttons are disabled except for the ⏻ Power button.

note

To cancel Operation Lock, press the projector's Enter *button for seven seconds.*

1. Press the Menu button.
2. Select the Setting menu and press Enter.
3. Use the ◌ pointer button (or up and down arrow buttons) to select Operation Lock and press the Enter button.
4. Select ON and press Enter.
5. Select Yes and press Enter to confirm the setting.
6. Press the Menu button.

Restoring the Default Settings

The Reset menu lets you return most projector menu settings to their default values. It also lets you reset the lamp hours to their inital default value; see page 75 for instructions on resetting the lamp timer.

To reset most projector menu settings, select Reset All and press the Enter button to display the confirmation screen. Select Yes to reset all the default settings or No to cancel.

note

The input signal, Video Signal, User's Logo, *and* Language *settings do not return to their defaults when you select* Reset All. *To reset the input signal or video signal, use the* Reset *option on the Signal menu; see page 55 for details. To reset the* User's Logo *and* Language *settings, use the* Reset *option on the Extended menu; see page 59 for details.*

5 Maintaining and Transporting the Projector

Your projector needs little maintenance. All you need to do on a regular basis is keep the lens clean. Any dirt or smears on the lens may show up on your projected image.

You also need to periodically clean the air filter and the air intake and exhaust vents. A clogged air filter or air vent can block ventilation needed to cool the projector and cause overheating.

The only parts you should replace are the lamp and air filter. If any other part needs replacing, contact your dealer or a qualified servicer.

This chapter covers the following:

- Cleaning the lens
- Cleaning the projector case
- Cleaning and replacing the air filter
- Replacing the lamp
- Resetting the lamp timer
- Transporting the projector

warning

Before you clean any part of the projector, turn it off and unplug the power cord. Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages in the projector can injure you severely. Do not try to service this product yourself, except as specifically explained in this User's Guide. *Refer all other servicing to qualified service personnel.*

Cleaning the Lens

Clean the lens whenever you notice dirt or dust on the surface.

- Use a canister of compressed air to remove dust.
- To remove dirt or smears on the lens, use lens-cleaning paper. If necessary, moisten a soft cloth with lens cleaner and gently wipe the lens surface.

caution

The lens is easily damaged. Do not use glass cleaner to clean the lens. Never rub the lens or use paper or rough material to clean it. Handle the projector carefully to avoid subjecting the lens to shocks.

Cleaning the Projector Case

Before you clean the case, first turn off the projector and unplug the power cord.

- To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.
- To remove stubborn dirt or stains, moisten a soft cloth with water and a mild detergent. Then wipe the case.
- Do not use wax, alcohol, benzene, paint thinner, or other chemical detergents. These can damage the case.

Cleaning and Replacing the Air Filter

Clean the air filter and air intake and exhaust vents on the bottom and rear of the projector after every 100 hours of use. If they are not cleaned periodically, they can become clogged with dust, preventing proper ventilation. This can cause overheating and damage the projector. When the filter and vents are clogged, the projector displays the message The projector is overheated.

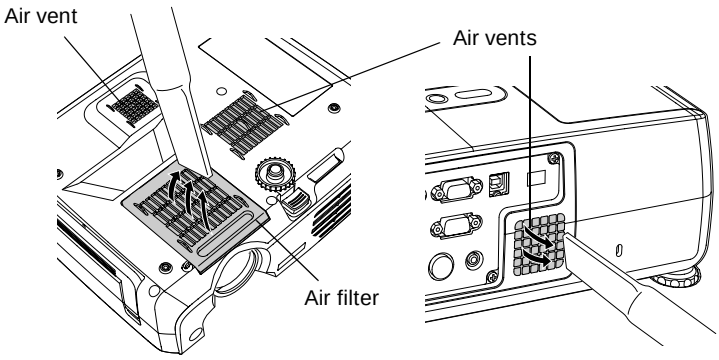
note

You may also need to clean the vents and filter if the Temp *light on top of the projector is red or flashing orange. See page 80 for details about the projector lights.*

To clean the air filter and air vents, follow these steps:

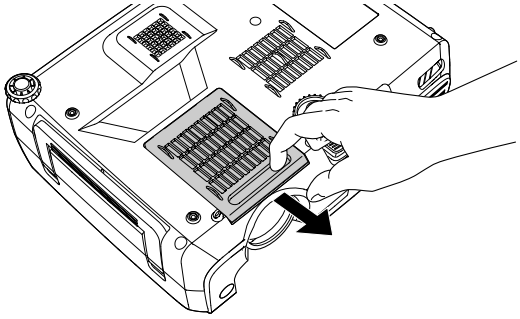
1. Press the ⏻ Power button twice to turn off the projector. When you hear the projector beep twice, unplug the power cord.
2. Clean the air vent on the back of the projector.
3. Carefully turn the projector upside-down and clean the filter and air intake vents on the base of the projector.

   To clean the filter and air vents, Epson recommends using a small vacuum cleaner designed for computers and other office equipment. If you don't have one, gently clean them using a very soft brush (such as an artist's brush).

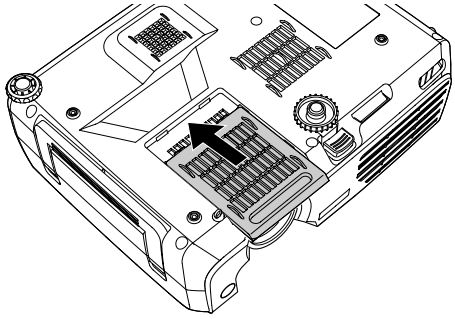


If the dirt is difficult to remove or if the filter is torn or bent, replace it. Contact your dealer or call Epson at (800) 873-7766 to obtain a new one. The air filter set (part number V13H134A06) contains two filters. In Canada, please call (800) 463-7766 to locate a dealer.

4. If you need to replace the filter, slide it off, as shown.



5. Align the new filter carefully as you slide it into place. It should click into place.



Replacing the Lamp

note

You can check to see how many hours the lamp has been used. See page 61.

Turn the projector off when not in use. Continuous 24-hour-a-day use may reduce the overall life of this product.

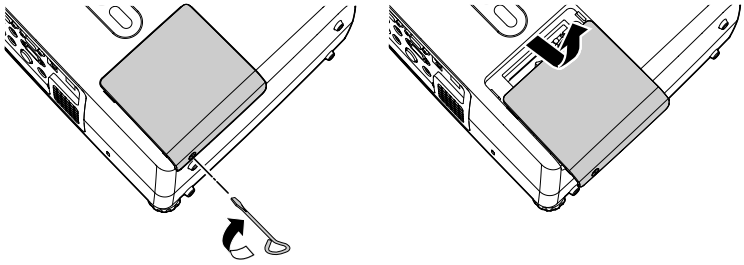
The projection lamp typically lasts for about 2000 hours of use (in high brightness mode) or 3000 hours (in low brightness mode). It is time to replace the lamp when:

- The projected image gets darker or starts to deteriorate.
- The ☼ lamp light is flashing orange.
- The message Replace the Lamp appears on the screen when the lamp comes on. Replace the lamp as soon as possible. If you continue to use the lamp after you see this message, there is a greater possibility of the lamp breaking.

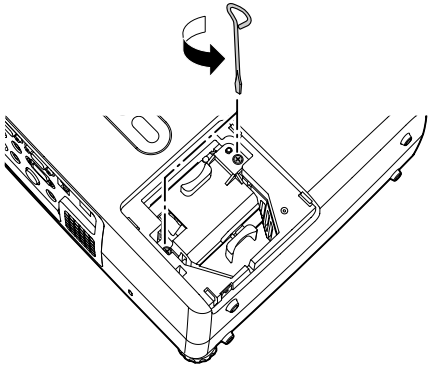
Contact your dealer or call Epson at (800) 873-7766 in the United States for a replacement lamp. Request part number V13H010L30. In Canada, please call (800) 463-7766 to locate a dealer.

Follow these steps to replace the lamp:

1. Press the ⏻ Power button twice to turn off the projector. When you hear the projector beep twice, unplug the power cord.
2. If the projector has been on, allow it to cool down for at least an hour (or until the lamp is cool).
3. Use the screwdriver that came with the lamp to loosen the screw holding the lamp cover.
4. Slide the cover out, then lift it off.



5. Use the screwdriver to loosen the two screws holding the lamp in place. (You can't remove the screws.)



warning

Let the lamp cool before replacing it. If the lamp breaks, handle the shards carefully to avoid injury.

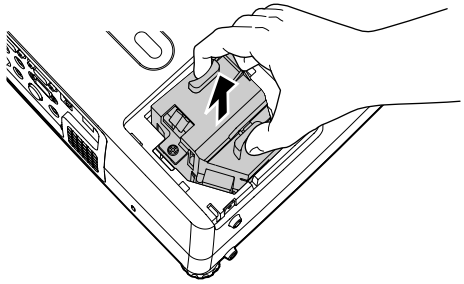
caution

Never touch the lamp with your bare hands. The invisible residue left by the oil on your hands may shorten the lamp life. Use a cloth or gloves to handle the new lamp.

warning

This product includes a lamp component that contains mercury (Hg). Please consult your state and local regulations regarding disposal or recycling. Do not put it in the trash.

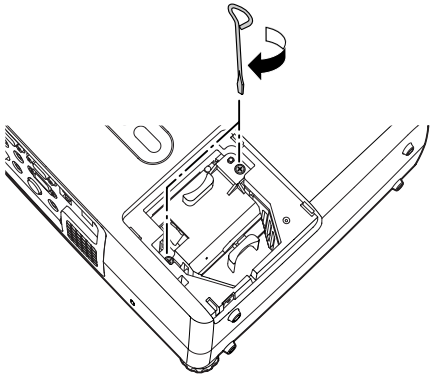
6. Hold the lamp as shown and pull it straight out.



caution

Do not touch the glass portion of the lamp assembly. Touching the glass could result in premature lamp failure.

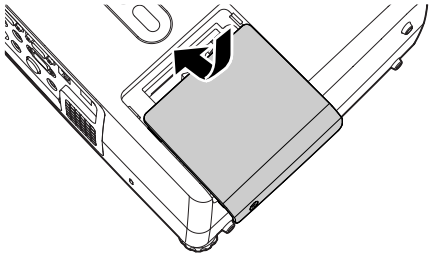
7. Gently insert the new lamp. If it doesn't fit easily, make sure it's facing the correct way.
8. Once the lamp is fully inserted, tighten its screws.



note

Be sure to seat the lamp fully and secure the lamp cover. If the lamp is not properly installed or the cover is loose, the lamp will not turn on.

9. Lower the lamp cover into place. (The opening should be almost covered, and the top of the cover should be flush with the top of the projector.) Then slide the cover closed and tighten the screw.

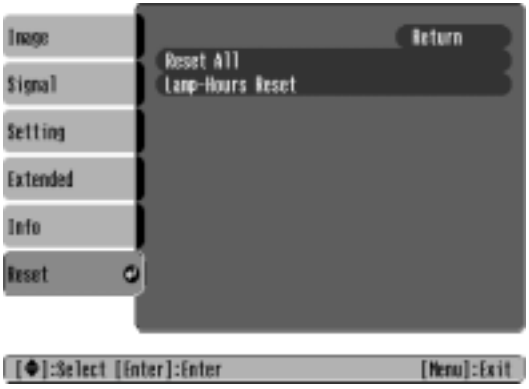


10. Reset the lamp timer as described in the next section.

Resetting the Lamp Timer

You must reset the lamp timer after replacing the lamp to clear the Replace the Lamp warning message. Follow these steps:

1. Connect the power cable and turn on the projector.
2. Press the Menu button on the remote control or projector and select the Reset menu. Then press Enter. You see the following:

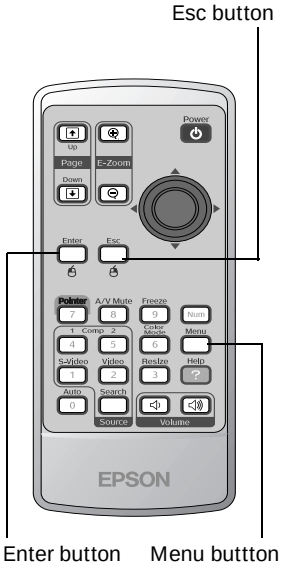


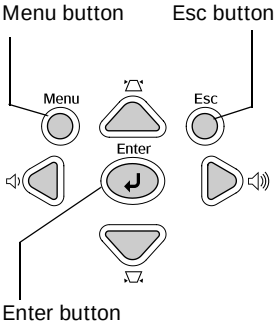
3. Select the Lamp-Hours Reset option and press Enter. You see the following:

4. Select Yes and press Enter.
5. Press Esc to return to the main menu or the Menu button to exit the menu system.

note

Do not reset the lamp timer if you have not replaced the lamp. If you do, the Lamp Hours *will not accurately reflect the number of hours that the lamp has been used.*





Transporting the Projector

note
Epson shall not be liable for any damages incurred during transportation.

The projector contains many glass and precision parts. If you need to transport it, please follow these packing guidelines to prevent damage to the projector:

- When shipping the projector for repairs, use the original packaging material if possible. If you do not have the original packaging, use equivalent materials, placing plenty of cushioning around the projector.
- When transporting the projector as freight or checked luggage, first put it in a carrying case, then pack it in a firm box, using cushioning around the case.

6 Solving Problems

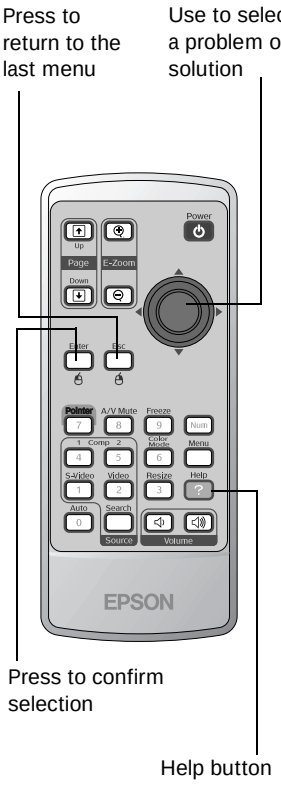
This chapter helps you solve problems with your projector, and tells you how to contact technical support for problems you can't solve yourself. This chapter explains the following:

- Using the projector's on-screen help system
- What to do when the projector's status lights flash
- Solving problems with the image or sound
- Solving password problems
- Solving problems with the remote control
- Solving problems with the projector's buttons
- Contacting technical support

Using On-Screen Help

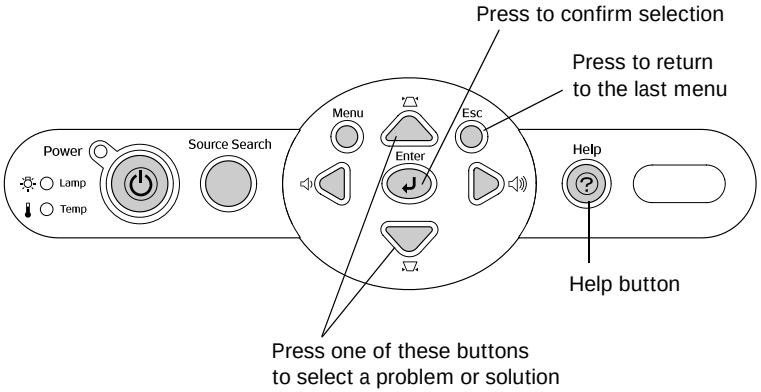
If the image doesn't look right or your audio isn't working, you can get help by pressing the ? Help button on the projector or remote control. The following choices are available:

- Problems with image
- Problems with sound
- Problems with [Source Search]
- Language change



Follow these steps to get help:

1. Press the ? Help button on the remote control or projector. You see the help menu.



2. Use the ⊹ pointer button on the remote control or the up and down arrow buttons on the projector to select an option. Then press the Enter button to select it.
3. Use the ⊹ pointer button on the remote control or the up and down arrow buttons on the projector to highlight the problem you want to solve. Then press the Enter button to view the solution(s).
4. Highlight a solution (if this choice is available). Then press the Enter button to select the solution.

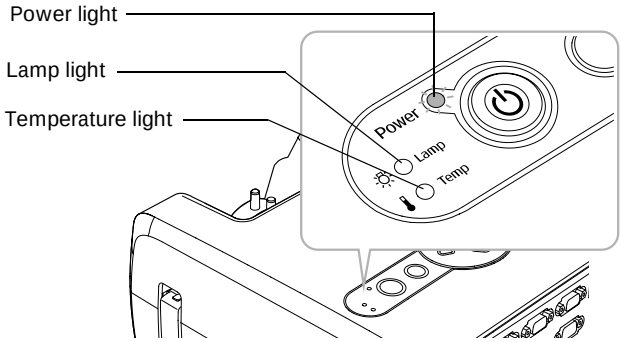
   Press the Esc button if you need to back up.

   If the solution is to adjust one of the settings, use the ⊹ pointer button on the remote control or the left and right arrow buttons on the projector to adjust it.
5. To exit the Help system, press the ? Help button.

If none of the suggestions solves your problem, see additional solutions to problems in the following sections.

What To Do When the Lights Flash

The lights on top of the projector indicate the projector's status and let you know when a problem occurs.



If the projector is not working correctly, first turn it off and unplug it. Then plug the power cord back in and turn on the projector. If this does not solve the problem, check the status lights on top of the projector and try the solutions recommended in the following table.

Power light	Lamp light	Temperature light	Description
Red	Flashing red	Flashing red	There is an internal error in the projector. Turn the projector off and unplug it. Contact Epson for help.
Red	Off	Flashing red	There is a problem with the fan or a sensor. Turn the projector off and unplug it. Contact Epson for help.
Red	Flashing red	Off	The lamp is burned out, broken, or not installed correctly; or the lamp cover is open. Close the cover or replace or reseat the lamp, if necessary, as described on page 72. If these suggestions don't work, contact Epson.
—	Flashing orange	Off	Replace the lamp with a new one as soon as possible; see page 72 for instructions. If you continue to use the lamp, there is a risk it may break.
Red	Off	Red	The projector has overheated and turned itself off. Let it cool for about five minutes, then turn it back on. Make sure there is plenty of space around and under the projector for ventilation. Also clean the air filter and air exhaust vents. See page 71. If it continues to overheat, you may need to replace the air filter.
Flashing red	Off	Flashing orange	The projector is too hot. Make sure the temperature in the room does not exceed 95 °F (35 °C) and there is plenty of space around and under the projector for ventilation. Clean the air filter and air vents, if necessary. See page 71 for instructions.
Orange	Off	Off	The projector is in standby or sleep mode. You can unplug it or press the ⏻ Power button to turn it on.
Flashing green	Off	Off	The projector is warming up. Wait for the image to appear.
Green	Off	Off	The projector is operating normally.
Flashing orange	Off	Off	The projector is cooling down. Wait for the light to stop flashing and remain orange before unplugging it.

Solving Problems with the Image or Sound

Power does not turn on.

- Make sure the power cable is connected. Also, connect a lamp to your power outlet to make sure it's working.
- If the projector lights turn off and on when you touch the power cable, the cable may be defective. Contact Epson as described on page 91.

No image appears on the screen.

- Check that the Power light is green, not flashing, and the lens cap is off.
- Make sure that the projector is securely connected to your computer or video source.
- The projector may be in standby or sleep mode. If the projector has not received any input signal for 30 minutes, it turns off the lamp to conserve the lamp life and save energy. If the Power light is orange, press the ⏻ Power button to turn the projector on.
- Press the A/V Mute button to make sure the picture has not been turned off temporarily.
- If the power was switched off and then on again, the projector may still be cooling down. Wait until the Power light stops flashing and remains orange; then press the ⏻ Power button again.
- Check the Video Signal or Computer 1 Input or Computer 2 Input setting in the Signal menu to make sure it is correct for the selected source. See page 55 for more information.
- Have messages been turned off in the Display setting of the Extended menu? See page 59 for details.
- Adjust the Brightness setting on the Image menu or select High for the Brightness Control setting in the Setting menu. See page 54 or page 58.

- The attached computer may be in sleep mode or displaying a black screen saver. Try pressing a key on the computer.
- If you're projecting from a video source, press the Play button on your video equipment.

Nothing appears on the external monitor.

- Make sure the VGA computer cable is connected to your computer's video port and the projector's Computer1/Component Video1 port. It will not work if you connected the computer cable to the projector's Computer2/Component Video2 port.
- Make sure the cable from your monitor is connected to the projector's Monitor Out port.

You see a blue screen with the message No Signal displayed.

- Make sure the cables are connected correctly, as described in Chapter 1.
- Make sure the power to your computer or video source is turned on.
- If you've connected a computer and one or more video sources, you may need to press the Source Search button on the projector, or the Comp 1, Comp 2, S-video, or Video button on the remote control to select the correct source. Allow a few seconds for the projector to sync up after pressing the button.
- If you've connected a notebook computer, make sure it's set to display on an external monitor. See page 33.

If you're using a PC notebook:

- Hold down the Fn key and press the function key that lets you display on an external monitor. It may have an icon such as 🖳/🖵, or it may be labelled CRT/LCD. Allow a few seconds for the projector to sync up after pressing it. Check your notebook's manual or online help for details.

  On most systems, the 🖳/🖵 or CRT/LCD key lets you toggle between the LCD screen and the projector, or display on both at the same time.

- Depending on your computer's video card, you might need to use the Display utility in the Control Panel to make sure that both the LCD screen and external monitor port are enabled. See your computer's documentation or online help for details.

If you're using a PowerBook or iBook with Macintosh OS X:

1. From the Apple menu, select System Preferences, then click Display.
2. Select VGA Display or Color LCD, click Arrange or Arrangement, then select Mirror Displays.

If you're using a PowerBook or iBook with Macintosh OS 9.x:

1. From the Apple menu, select Control Panels, then click Monitors or Monitors and Sound.
2. Click the Arrange icon.
3. Drag one monitor icon on top of the other. This lets you display on the projector screen as well as the LCD screen.
4. If the Arrange icon isn't available, click the Monitor icon.
5. Select one of the listed Simulscan resolutions. (Allow a few seconds for the projector to sync up after making the selection.)

The message Not Supported is displayed.

- Make sure your computer's resolution and frequency are supported by the projector. See page 97. If necessary, change your computer's resolution setting as described below.
- If you're projecting from a composite or S-video source, make sure the correct Video Signal is selected in the Signal menu. See page 57. It should be set to Auto unless you are projecting from a 60 Hz PAL video source, in which case it should be set to PAL60.

Only part of the computer image is displayed.

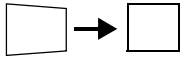
- If you're projecting from a computer or RGB video device, press the Auto button on the remote control. If this doesn't work or if you're projecting from a component, composite, or S-video device, you may need to adjust the Position setting in the Signal menu. See page 56 for more information.
- If you've enlarged part of the image using the E-Zoom ⊕ button on the remote control, press the Esc button to cancel zooming and return to full display.
- Try pressing the Resize button on the remote control to select a different aspect ratio (ratio of length to height).
- Make sure your computer's resolution setting is correct. Ideally, it should be 1024 × 768 to match the projector's native resolution. If this option isn't available, select one of the supported display formats listed on page 98.
    - Windows:
      Right-click the desktop, select Properties, click the Settings tab, and select a different resolution.
    - Macintosh OS X:
      On the Apple menu, choose System Preferences, then click Display (or Displays for OS X 10.3). Select a different resolution.

- Macintosh OS 9.x:
  On the Apple menu, choose Control Panels, then click Monitors or Monitors and Sound. Select a different resolution.

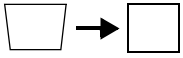
If this option isn't available, select one of the other compatible video formats listed on page 96.

- You may also need to modify existing presentation files if you created them for a different resolution. See your software documentation for specific information.
- If you've set up your projector and computer to display the same image simultaneously, the projector may only project half the image. Turn off the dual display settings.

The image isn't rectangular, but trapezoid-shaped.



- Make sure the projector isn't placed off to one side of the screen, at an angle, or the image won't be rectangular. Place it directly in front of the center of the screen, facing the screen squarely.



- If you've tilted the projector upward, the image will be broader at the top. Turn on Auto Keystone correction as described on page 57 or hold down the or buttons on top of the projector until the image is rectangular.

The image contains static or noise.

- If you're using a computer cable longer than 6 feet, or an extension cable, the image quality may be reduced.
- Keep your computer and video cables separated from the power cord as much as possible to prevent interference.
- The video signal may be split between the computer and the projector. If you notice a decline in the projected image quality when the image is displayed simultaneously on your notebook computer and the projector, turn off the notebook's LCD display.

- If you're projecting from a composite or S-video source, check the Video Signal setting in the Signal menu. In most cases, leave it set at Auto. If you're using a 60-Hz PAL video source, change this setting to PAL60. See page 57 for details.
- Make sure the cables are securely connected at both ends.
- If you're projecting from a computer, select the correct resolution; see "Compatible Computer Display Formats" on page 97.
- If you're projecting from a computer, press the Auto button on the remote control or the Enter button on the projector to adjust tracking and sync automatically. If that doesn't work, try adjusting the Sync and Tracking settings in the Signal menu. See page 56.

note

If you turn on Auto Keystone *in the Setting menu (see page 58) or change the* Sharpness *setting in the Image menu (see page 54), you may have trouble adjusting the focus using the focus ring. Reset these settings to their default values if you want to use the focus ring; see page 68.*

The image is blurry.

- Adjust the focus using the focus ring.
- Make sure the lens cap is off.
- There may be dirt or smears on the lens. Clean the lens as described on page 70.
- Make sure the lens is not fogged by condensation. You may need to wait before using the projector after moving it from a cold environment.
- Make sure the projection distance is within the range described on page 14.
- Adjust the Sharpness setting on the Image menu (see page 54). You should be able to see the effect on the screen immediately.
- Adjust the Brightness and Contrast settings in the image menu; see page 54.

You see vertical stripes, flickering, or the image still looks blurry after trying the solutions in the previous section.

- If you're projecting from a computer and displaying an image that contains a lot of fine detail, you may notice one or more vertical stripes or bands, or some of the characters may look heavy or blurred. Press the Auto button on the remote control. This resets the projector's tracking and sync settings.
- If further adjustment is needed, you can fine-tune the Tracking and Sync settings manually using the Signal menu as described on page 56.

  1. Fill the screen with an image containing fine detail when making these adjustments. For example, in Windows you can select a pattern to appear as your desktop background. Or try projecting black text on a white background.
  2. Adjust the Tracking to eliminate vertical stripes.
  3. Adjust the Sync to increase the sharpness of the image or eliminate flickering or signal interference.

note

For best results, adjust tracking before you adjust sync.

The colors of the image are not right.

- Make sure the input signal setting on the Signal menu matches the signal from the connected device. If the image is too purple and you've connected a computer or RGB video device to the Computer1/Component Video1 or Computer2/Component Video2 port, select Computer1 or Computer2 as the input source. If you've connected a component video device to one of these ports, select Component Video1 or Component Video2. If you're projecting from a composite video or S-video source, make sure the correct Video Signal is selected on the Signal message. See page 55 for details.
- Try selecting a different Color Mode. See page 54 for instructions.
- If you're displaying video, adjust the Color Intensity and Tint settings on the Image menu. See page 54 for instructions.
- Adjust the Brightness and Contrast settings on the Image menu. See page 54.

note

Because of the different technologies used, your projected image may not exactly match the colors on your notebook or computer monitor.

- Try adjusting the Color Adjustment setting on the Image menu. See page 54.
- Check your computer display settings to correct the color balance.
- If the image seems dark, the lamp may be nearing time for replacement. Check the lamp hours as described on page 61 and replace it, if necessary, as described on page 72.

There is no sound.

- Press the 🔊 button on the remote control or projector to turn up the volume.
- If you've turned off the picture and sound, press the A/V Mute button on the remote control to turn them on again.
- If you're using a VCR or other video source, make sure its volume is not turned all the way down or muted. Also, make sure the cables are connected correctly, as described in Chapter 1.
- Make sure the audio cable is connected to the correct Audio port. See page 21.
- If your presentation includes computer audio, make sure the volume control on your computer is not turned all the way down or muted. Make sure the audio cable is securely connected to both the projector and your computer's 🎧 headphone jack or 🔊 audio out jack. See page 21.
- The wrong source may be selected. Press the Source Search button on the projector—or the Comp 1, Comp 2, S-Video, or Video button on the remote control—to select the correct source.

Solving Password Problems

You have forgotten the password.

- Write down the request code that appears in the Password Protect Release screen and contact Epson. See “Where To Get Help” on page 91.
- If you turned on the password protect feature before setting the password and no password was set before, try using the default password: 0000.

The remote control is not available.

You must have the remote control to enter the password. If necessary, you can purchase a replacement remote control from Epson. See page 91 for details about ordering.

Solving Problems with the Remote Control

The projector doesn’t respond to remote control commands.

- Make sure you are within 20 feet of the projector, and within range of the projector’s front or back sensor (approximately 30° to the left or right and 15° above or below).
- The remote control batteries may not be installed correctly or may be low on power. Replace the batteries as described on page 48.
- Dim the room lights and turn off any fluorescent lights. Make sure the projector is not in direct sunlight. Strong lighting, especially fluorescent lights, may affect the projector’s infrared receivers.
- Turn off any nearby equipment that emits infrared energy, such as a radiant room heater.
- The ⏻ Power button is disabled while the Power light is flashing. Wait for the light to stop flashing.

You have lost the remote control.

You need the remote control to access many projector features. If you have lost it, you can order another from Epson. See page 91 for details about ordering.

You can't control the mouse pointer with the remote control.

- Make sure the USB mouse cable is securely connected to both your computer's USB port and the projector's USB port. For details, see page 19.
- To use the USB mouse connection on a PC, your system must have a "clean" installation of Windows 98SE, Windows Me, Windows XP, or Windows 2000. The connection may not work correctly if your system was upgraded from Windows 95.
- If you're running Windows 98 or Me, you may need to install USB drivers from your Windows CD-ROM. After you install the drivers, restart both the computer and the projector to resynchronize the setup.
- You can't use the wireless mouse function while using the E-Zoom buttons on the remote, adjusting the volume, capturing a user's logo, or displaying a configuration or help menu.

Solving Problems with the Projector's Buttons

The projector's buttons don't work.

- Operation Lock may be enabled. To disable it, press the projector's Enter button for seven seconds.
- The ⏻ Power button is disabled while the Power light is flashing. Wait for the light to stop flashing.

Where To Get Help

Epson provides technical assistance through electronic support services 24 hours a day, as listed in the following table.

Service	Access
World Wide Web	From the Internet, you can reach Epson's product support page at **http://support.epson.com.** After selecting your product, you can access troubleshooting information, download product documentation, and receive technical advice through e-mail.
Presenters Online	Access tips, templates, and training for developing successful presentations at **http://www.presentersonline.com**

Telephone Support Services

To use the Epson PrivateLine Support service, call (800) 637-7661 and enter the PIN on the Epson PrivateLine Support card included with your projector. This is the fastest way to speak to a live representative, and it's free. This service is available 6 AM to 6 PM, Pacific Time, Monday through Friday, for the duration of your warranty period.

You may also speak with a projector support specialist by dialing one of these numbers:

- U.S.: (562) 276-4394, 6 AM to 6 PM, Pacific Time, Monday through Friday
- Canada: (905) 709-3839, 6 AM to 6 PM, Pacific Time, Monday through Friday

Toll or long distance charges may apply.

Before you call, please have the following information ready:

- Product name (PowerLite 821p)
- Product serial number (located on the bottom of the projector)
- Computer or video configuration
- Description of the problem

You can purchase screens, carrying cases, or other accessories from Epson at (800) 873-7766 or by visiting the Epson Store at www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for dealer referral.

note

To purchase a replacement remote control, call (562) 276-4394 (U.S.) or (905) 709-3839 (for dealer referral in Canada).

A Technical Specifications

General

Type of display	Poly-silicon TFT active matrix
Lens	F=1.70 to 1.87, f=21.3 to 25.6 mm
Resolution	1024 × 768 pixels
Color reproduction	Full color, 16.8 million colors
Brightness (ANSI)	2600 lumens (High brightness mode) 1900 lumens (Low brightness mode)
Contrast ratio	500:1
Image size	30 to 300 inches (0.8 to 7.6 meters)
Projection distance	2.8 to 48.3 feet (0.85 to 14.7 meters)
Projection methods	Front, rear, ceiling
Focus adjustment	Manual
Zoom adjustment	Manual
Internal sound system	5 W monaural
Optical aspect ratio	4:3 (horizontal:vertical)
Zoom ratio	1:1.6
Noise level	36 dB (High brightness mode) 30 dB (Low brightness mode)
Keystone correction angle	± 15° vertical (maximum)

note

Lamp life results vary depending on environmental conditions and usage. Turn the projector off when not in use. Continuous 24-hour-a-day use may reduce the overall life of the product.

Projection Lamp

Power consumption	200 W
Lamp life	About 2000 hours (High brightness); 3000 hours (Low brightness)

Remote Control

Range	20 feet (6 meters)
Operating angle	About ± 30° horizontally About ± 15° vertically
Batteries (2)	Alkaline AAA

Mouse Compatibility

Supports USB (Type B)

Dimensions

Height	4.13 to 4.8 inches (105 to 123 mm)
Width	13.78 inches (350 mm)
Depth	9.45 inches (272 mm)
Weight	8.9 lb (4.0 kg)

Electrical

Rated frequency	50/60 Hz
Power supply	100 to 120 VAC, 3.2 A 200 to 240 VAC, 1.6 A
Power consumption	Operating: 280 W Standby: 5 W

Environmental

Temperature	Operating: 41 to 95 °F (5 to 35 °C)
	Storage: 14 to 140 °F (–10 to 60 °C)
Humidity	Operating: 20 to 80% RH, non-condensing
	Storage: 10 to 90% RH, non-condensing

Safety and Approvals

United States	FCC 47CFR Part15B Class B (DoC) UL60950 Third Edition
Canada	ICES-003 Class B CSA C22.2 No. 60950 (cUL)
CE Marking	Directive 73/23/EEC, 89/336/EEC IEC60950 Third Edition EN 55022, EN 55024 IEC/EN61000-3-2 IEC/EN61000-3-3

Pixelworks™ DNX™ ICs are used in this projector.

Compatible Video Formats

You can use any of the following video sources: VCR, DVD player, camcorder, digital camera, gaming console, or laser disc player. The projector supports composite video, S-video, component video, and RGB video, and it automatically senses the video format (HDTV, SDTV, NTSC, PAL, or SECAM).

The projector supports these international video standards:

Mode	Refresh Rate (Hz)
NTSC	60
NTSC 4:3	60
PAL	50
PAL 4:3	50
M-PAL	60
N-PAL	50
PAL60	60
SECAM	50
SECAM 4:3	50
HDTV (720p)	60
HDTV (1080i)	60
SDTV (480i)	60
SDTV (540i)	50
SDTV (480p)	60

Compatible Computer Display Formats

You can connect the projector to a wide range of computers, including PCs and notebooks, Apple Macintosh, Power Macintosh series (including G3, G4 and G5 systems), PowerBook computers, many iMac and iBook series systems, and high-end workstations such as the Sun® SPARCstation.™

Although images are displayed at the projector's native resolution of 1024 × 768 pixels, Epson's patented SizeWise chip supports computer display formats ranging from VGA through UXGA.

To project images output from a computer, the computer's external monitor signal must be set at a refresh rate (vertical frequency) that's compatible with the projector; see the following table for compatible formats. For best results, the computer's resolution should be set to match the projector's native resolution (1024 × 768). If this resolution isn't available, select one of the other compatible formats:

- Windows:
  Right-click the desktop, select Properties, click the Settings tab, and select a compatible resolution. (For a notebook displaying through an external monitor port, you'll need to click the Advanced button on the Settings tab, then adjust the resolution of the external monitor.)
- Macintosh OS X:
  From the Apple menu, select System Preferences, then click Displays. Make sure the VGA Display or Color LCD dialog box is selected, then click the Display tab and select a compatible resolution.
- Macintosh OS 9.x:
  On the Apple menu, choose Control Panels, then click Monitors or Monitors and Sound. Click the Monitor tab and select a compatible resolution for your external monitor.

You may need to modify existing presentation files if you created them for a different resolution. See your software documentation for details.

The projector supports these monitor display formats:

Mode	Refresh Rate (Hz)	Resolution
VGA EGA	70	640 × 350
VGA—60	60	640 × 480
VESA—60	60	640 × 480
VESA—72	72	640 × 480
VESA—75	75	640 × 480
VESA—85	85	640 × 480
SVGA—56	56	800 × 600
SVGA—60	60	800 × 600
SVGA—72	72	800 × 600
SVGA—75	75	800 × 600
SVGA—85	85	800 × 600
XGA—60	60	1024 × 768
XGA—70	70	1024 × 768
XGA—75	75	1024 × 768
XGA—85	85	1024 × 768
SXGA1—70	70	1152 × 864
SXGA1—75	75	1152 × 864
SXGA1—85	85	1152 × 864
SXGA2—60	60	1280 × 960
SXGA2—75	75	1280 × 960
SXGA2—85	85	1280 × 960
SXGA3—60	60	1280 × 1024
SXGA3—75	75	1280 × 1024
SXGA3—85	85	1280 × 1024
UXGA—60	60	1600 × 1200
iMAC VGA	117	640 × 480
iMAC SVGA	95	800 × 600
iMAC XGA	75	1024 × 768
MAC13	67	640 × 480
MAC16	75	832 × 624
MAC19—60	60	1024 × 768
MAC19	75	1024 × 768
MAC21	75	1152 × 870
SDTV (540i)	50	720 × 540
SDTV (480i)	60	640 × 480
SDTV (480p)	60	640 × 480
HDTV (720p)	60	1280 × 720
HDTV (1080i)	60	1920 × 1080

B Notices

This appendix includes safety instructions and other important information about your Epson PowerLite projector.

Important Safety Instructions

Follow these safety instructions when setting up and using the projector:

- Do not place the projector on an unstable cart, stand, or table.
- Do not use the projector near water or sources of heat.
- Use the type of power source indicated on the projector. If you are not sure of the power available, consult your dealer or power company.
- Place the projector near a wall outlet where the plug can be easily unplugged.

  Placez l'appareil près d'une prise de courant où la fiche peut être débranchée facilement.
- Insert the projector's three-wire grounding-type plug into a properly grounded outlet. If you have a two-prong outlet, contact an electrician to replace it. Do not hold the plug with wet hands.
- Take the following precautions for the plug. Failure to comply with these precautions could result in sparks or fire: Do not insert the plug into an outlet with dust present. Insert the plug firmly into the outlet.
- Do not overload wall outlets, extension cords, or integral convenience receptacles. This can cause fire or electric shock.
- Do not place the projector where the cord can be walked on. This may result in fraying or damage to the plug.
- Unplug the projector from the wall outlet before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.
- Do not block the slots and openings in the projector case. They provide ventilation and prevent the projector from overheating. Do not operate the projector on a sofa, rug, or other soft surface, or in a closed-in cabinet unless proper ventilation is provided.

- Never push objects of any kind through the cabinet slots. Never spill liquid of any kind into the projector.
- Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself. Refer all servicing to qualified personnel. Opening or removing covers may expose you to dangerous voltages and other hazards.
- Unplug the projector from the wall outlet and refer servicing to qualified service personnel under the following conditions: When the power cord or plug is damaged or frayed. If liquid has been spilled into the projector, or if it has been exposed to rain or water. If it does not operate normally when you follow the operating instructions, or if it exhibits a distinct change in performance, indicating a need for service. If it has been dropped or the housing has been damaged.
- This product includes a lamp component that contains mercury (Hg). Please consult your state and local regulations regarding proper disposal or recycling. Do not put in the trash.
- Unplug the projector during lightning storms or when it will not be used for extended periods.
- Do not place the projector and/or remote control on top of heat-producing equipment or in a hot location.
- If you use the projector in a country other than where you purchased it, use the correct power cord for that country.
- Do not stand on the projector or place heavy objects on it.
- Do not use the projector outside of the required temperature range of 41 to 95 °F (5 to 35 °C). Doing so may cause an unstable display and could lead to projector damage.
- Do not store the projector outside of the required temperature range of 14 to 140 °F (–10 to 60 °C) or in direct sunlight for long periods of time. Doing so may cause damage to the case.

WARNING: This product contains chemicals, including lead, known to the State of California to cause birth defects or other reproductive harm. *Wash hands after handling.*

Remote Control Information

You can operate the projector by remote control via a line-of-sight infrared (IR) receiver at the front and rear of the projector. The projector may not respond to remote control commands under the following conditions:

- There is an object between the remote control IR emitter and the IR receiver on the projector.
- Ambient light is too bright.
- Certain types of fluorescent lighting are used.
- A strong light source shines into the IR receiver.
- Other equipment that emits infrared energy, such as a radiant room heater, is in the room.

These conditions commonly cause problems for most infrared-controlled equipment. Try the following:

- The remote control's batteries may be low on power; replace them.
- Dim the ambient lighting and/or turn off any fluorescent lights.
- Close any window coverings and/or move the projector out of direct sunlight.
- Turn off other equipment that emits infrared energy.

Declaration of Conformity

According to 47CFR, Part 2 and 15, Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers

We:	Epson America, Inc.
Located at:	3840 Kilroy Airport Way MS: 3-13 Long Beach, CA 90806
Telephone:	(562) 290-5254

Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name:	Epson
Type of Product:	Projector
Model:	EMP-821
Marketing Name:	PowerLite 821p

FCC Compliance Statement

For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification or Declaration of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For Canadian Users

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le materiel brouilleur du Canada.

Warranty

Epson America, Inc. Limited Warranty

Basic Two-Year Warranty and 90-Day Lamp Warranty

What Is Covered: Epson America, Inc. (“Epson”) warrants to the original retail purchaser of the Epson product enclosed with this limited warranty statement that the product, if purchased new and operated in the United States or Canada, conforms to the manufacturer’s specifications and will be free from defects in workmanship and materials for a period of two (2) years from the date of original purchase (except that the warranty period is 90 days for projector lamps). For warranty service, you must provide proof of the date of original purchase.

What Epson Will Do To Correct Problems: If you elect carry-in warranty service, please bring the product securely packaged in its original container or an equivalent, along with proof of the date of original purchase, to your Epson Dealer or Epson Customer Care Center. Epson will, at its option, repair or replace on an exchange basis the defective unit, without charge for parts or labor. When warranty service involves the exchange of the product or of a part, the item replaced becomes Epson property. The exchanged product or part may be new or previously refurbished to the Epson standard of quality, and at Epson’s option, the replacement may be another model of like kind and quality. Epson’s liability for replacement of the covered product will not exceed the original retail selling price of the covered product. Exchange or replacement products or parts assume the remaining warranty period of the product covered by this limited warranty. However, each replacement lamp carries the limited 90-day warranty stated above.

What This Warranty Does Not Cover: This warranty does not apply to refurbished or reconditioned products. This warranty covers only normal consumer use in the United States and Canada. 24-hour-per-day use causes unusual strain and is not considered normal use. This warranty does not cover consumables (e.g., fuses), other than lamps. This warranty is not transferable. Epson is not responsible for warranty service should the Epson label or logo or the rating label or serial number be removed or should the product fail to be properly maintained or fail to function properly as a result of misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters such as fire, flood, and lightning, improper electrical current, software problems, interaction with non-Epson products, or service other than by an Epson Authorized Servicer. Postage, insurance, or shipping costs incurred in presenting your Epson product for carry-in warranty service are your responsibility. If a claimed defect cannot be identified or reproduced in service, you will be held responsible for costs incurred.

THE WARRANTY AND REMEDY PROVIDED ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME LAWS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES. IF THESE LAWS APPLY, THEN ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED TO THE WARRANTY PERIOD IDENTIFIED ABOVE. UNLESS STATED HEREIN, ANY STATEMENTS OR REPRESENTATIONS MADE BY ANY OTHER PERSON OR FIRM ARE VOID. IN THE EVENT THE REMEDIES ABOVE FAIL, EPSON'S ENTIRE LIABILITY SHALL BE LIMITED TO A REFUND OF THE PRICE PAID FOR THE EPSON PRODUCT COVERED BY THIS LIMITED WARRANTY. EXCEPT AS PROVIDED IN THIS WRITTEN WARRANTY, NEITHER EPSON AMERICA, INC. NOR ITS AFFILIATES SHALL BE LIABLE FOR ANY LOSS, INCONVENIENCE, OR DAMAGE, INCLUDING DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE OR INABILITY TO USE THE EPSON PRODUCT, WHETHER RESULTING FROM BREACH OF WARRANTY OR ANY OTHER LEGAL THEORY.

In Canada, warranties include both warranties and conditions.

Some jurisdictions do not allow limitations on how long an implied warranty lasts and some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from jurisdiction to jurisdiction.

To locate the Authorized Epson Servicer nearest you, call the Epson Connection[SM] at (800) 637-7661 + PIN or (562) 276-4394 in the U.S. and (905) 709-3839 in Canada or write to: Epson America, Inc., P.O. Box 93012, Long Beach, CA 90809-3012.

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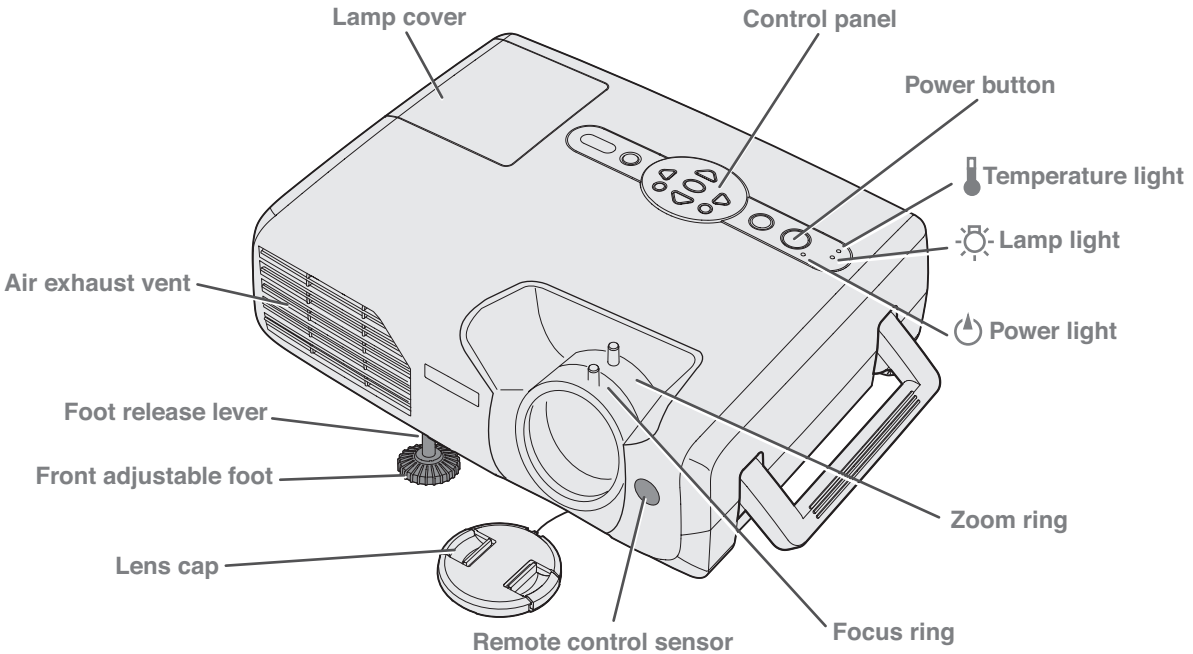
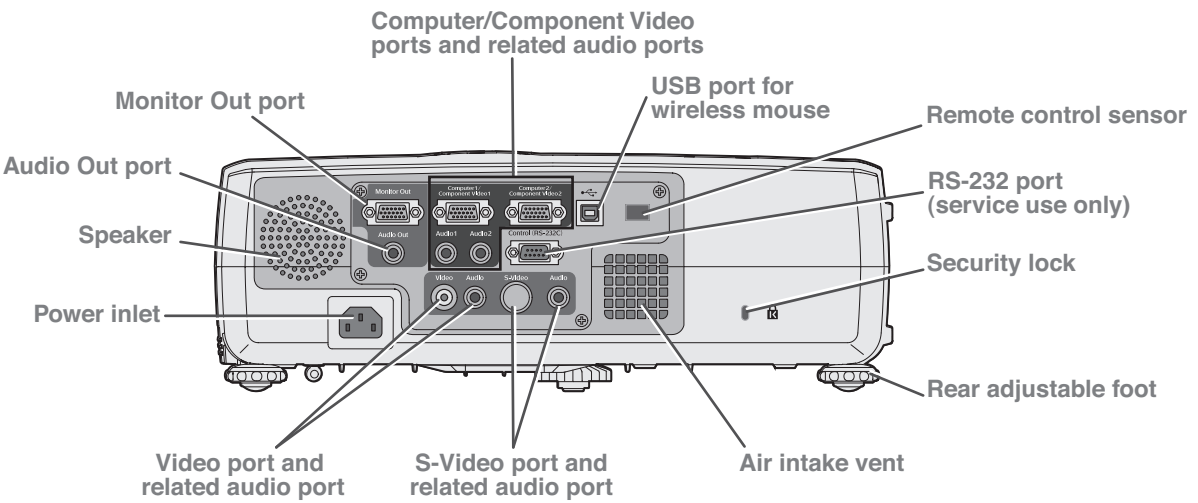
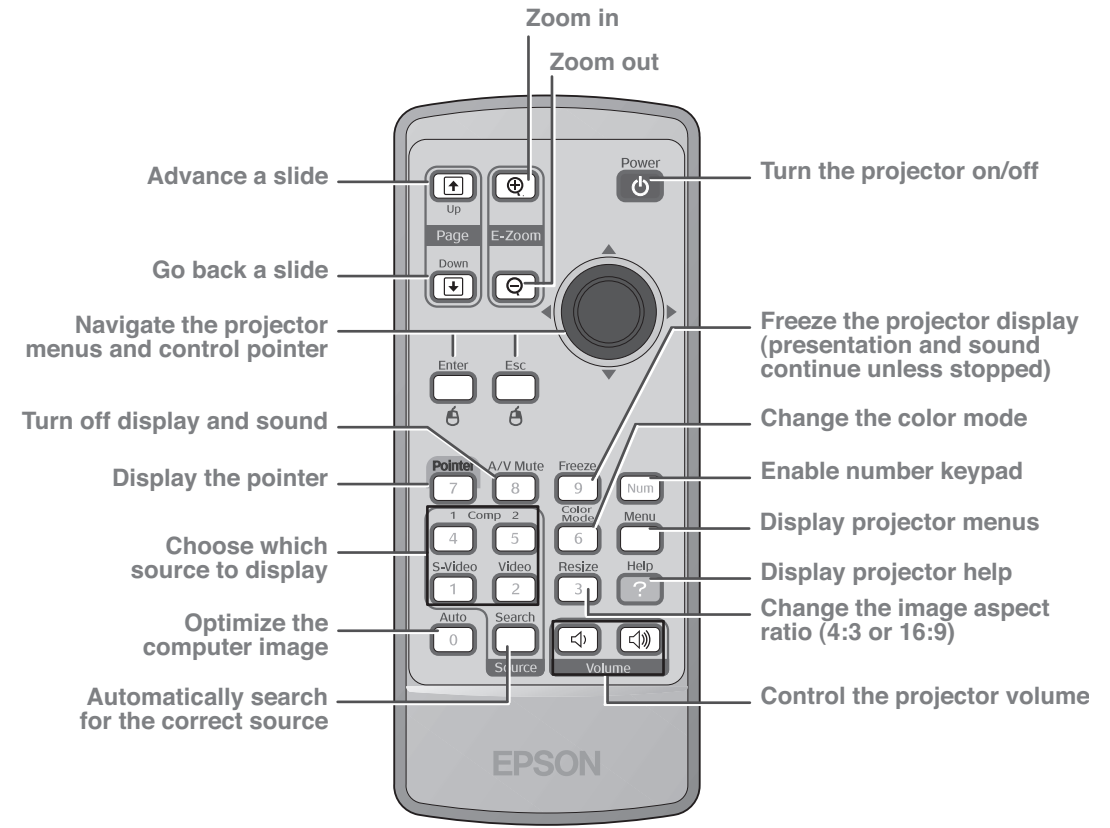

Lamp cover
Control panel
Power button
Temperature light
Lamp light
Air exhaust vent
Power light
Foot release lever
Front adjustable foot
Zoom ring
Lens cap
Remote control sensor
Focus ring


Computer/Component Video ports and related audio ports
USB port for wireless mouse
Monitor Out port
Remote control sensor
Audio Out port
RS-232 port (service use only)
Speaker
Security lock
Power inlet
Rear adjustable foot
Video port and related audio port
S-Video port and related audio port
Air intake vent


Zoom in
Zoom out
Advance a slide
Go back a slide
Navigate the projector menus and control pointer
Turn off display and sound
Display the pointer
Choose which source to display
Optimize the computer image
Automatically search for the correct source
Turn the projector on/off
Freeze the projector display (presentation and sound continue unless stopped)
Change the color mode
Enable number keypad
Display projector menus
Display projector help
Change the image aspect ratio (4:3 or 16:9)
Control the projector volume
Power
Up
Page
Down
E-Zoom
Enter
Esc
Pointer
A/V Mute
Freeze
Num
Color Mode
Menu
Comp 1
Comp 2
S-Video
Video
Resize
Help
Auto
Search
Source
Volume
EPSON